

PICK Pilot Mixed Methods Evaluation

Preliminary Quantitative Analyses and Results

27 June 2018

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1 Data Summary

1.1 Means and Standard Deviations. Also Testing for Difference in Analytic Sample vs. Full Sample.

	In Analysis Sample		P-Value
	FALSE n = 59	TRUE n = 129	
Age_Decades			0.348
	3.87 (1.37)	3.67 (1.18)	
Age_Groups			0.555
18-30	18 (30.5%)	49 (38%)	
31-40	9 (15.3%)	31 (24%)	
41-50	12 (20.3%)	29 (22.5%)	
51+	12 (20.3%)	20 (15.5%)	
NA	8 (13.6%)	0 (0%)	
Ethnic_Code			0.737
Caucasian	34 (57.6%)	89 (69%)	
Hispanic/Latino	11 (18.6%)	21 (16.3%)	
Other	7 (11.9%)	19 (14.7%)	
NA	7 (11.9%)	0 (0%)	
Education_3cat			0.852
High school graduate/GED/No degree	19 (32.2%)	55 (42.6%)	
Some college	12 (20.3%)	29 (22.5%)	
Tech./College/Grad Degree	19 (32.2%)	45 (34.9%)	
NA	9 (15.3%)	0 (0%)	
Income_10K			0.399
	2.01 (2.13)	1.72 (1.60)	
Gender			0.821
Male	9 (15.3%)	23 (17.8%)	
Female	50 (84.7%)	106 (82.2%)	
NA	0 (0%)	0 (0%)	
Divorced_Dichotomous			0.319
Never Divorced	14 (23.7%)	63 (48.8%)	
Divorced	23 (39%)	66 (51.2%)	
NA	22 (37.3%)	0 (0%)	
FinancialWorry_cat			0.302
Never, Once in a While, Hardly Ever	16 (27.1%)	24 (18.6%)	
Often	18 (30.5%)	44 (34.1%)	
Almost all the time	22 (37.3%)	61 (47.3%)	
NA	3 (5.1%)	0 (0%)	
Prior_RshpEducation_collapsed			0.644
None	24 (40.7%)	65 (50.4%)	
Some/A lot	29 (49.2%)	64 (49.6%)	
NA	6 (10.2%)	0 (0%)	

Number_Attended			0.536
One Session	23 (39%)	44 (34.1%)	
Two Sessions	11 (18.6%)	34 (26.4%)	
Three Sessions	22 (37.3%)	51 (39.5%)	
NA	3 (5.1%)	0 (0%)	
Dosage			1
Partial	34 (57.6%)	78 (60.5%)	
Full	22 (37.3%)	51 (39.5%)	
NA	3 (5.1%)	0 (0%)	
Healthy_Rel_Skills_Change			0.731
	1.23 (1.10)	1.29 (0.98)	
Partner_Selection_Change			0.513
	1.54 (1.31)	1.70 (1.16)	
Past_Rel_Behav_Change			0.349
	0.97 (1.08)	1.15 (0.94)	
Rel_Behav_Attit_Change			0.191
	0.78 (0.93)	1.00 (0.95)	
Healthy_Rel_Before.n			0.201
	3.27 (1.09)	3.03 (1.03)	
Communicate_Before.n			0.351
	3.43 (1.11)	3.26 (0.91)	
ConflictManagement_Before.n			0.312
	3.34 (1.11)	3.14 (0.96)	
Healthy_Rel.n			0.959
	4.52 (0.62)	4.52 (0.56)	
Communicate.n			0.249
	4.55 (0.54)	4.44 (0.63)	
ConflictManagement.n			0.879
	4.35 (0.88)	4.33 (0.70)	
RightPartner_Before.n			0.1
	3.09 (1.16)	2.76 (1.00)	
LearnPartner_Before.n			0.093
	3.20 (1.24)	2.83 (1.04)	
PaceRelationship_Before.n			0.33
	2.98 (1.24)	2.77 (1.05)	
WarningSigns_Before.n			0.243
	3.17 (1.25)	2.91 (1.07)	
RightPartner.n			0.786
	4.45 (0.72)	4.41 (0.67)	
LearnPartner.n			0.917
	4.57 (0.75)	4.58 (0.61)	
PaceRelationship.n			0.165
	4.66 (0.52)	4.53 (0.64)	
WarningSigns.n			0.426
	4.64 (0.53)	4.56 (0.62)	
LearnedGrowingUp_Before.n			0.201
	3.60 (1.17)	3.33 (1.02)	
PastRelationships_Before.n			0.295

	3.54 (1.16)	3.32 (1.06)	
GetAlongParents_Before.n			0.327
	3.70 (1.20)	3.49 (1.11)	
FriendshipsAreLike_Before.n			0.204
	3.64 (1.19)	3.38 (1.10)	
LearnedGrowingUp.n			0.632
	4.46 (0.79)	4.52 (0.62)	
PastRelationships.n			0.383
	4.45 (0.92)	4.58 (0.74)	
GetAlongParents.n			0.901
	4.50 (0.76)	4.52 (0.71)	
FriendshipsAreLike.n			0.599
	4.58 (0.73)	4.52 (0.73)	
Fights_Before.n			0.256
	3.74 (1.08)	3.52 (1.11)	
FeelingsHurt_Before.n			0.077
	3.88 (1.06)	3.54 (1.02)	
RightandWrong_Before.n			0.547
	3.86 (1.16)	3.74 (0.91)	
Fights.n			0.648
	4.45 (0.96)	4.52 (0.81)	
FeelingsHurt.n			0.965
	4.62 (0.70)	4.62 (0.64)	
RightandWrong.n			0.738
	4.64 (0.75)	4.68 (0.59)	
In Analysis Sample			<.001
FALSE	59 (100%)	0 (0%)	
TRUE	0 (0%)	129 (100%)	
NA	0 (0%)	0 (0%)	

1.2 Testing for Difference in a Larger Analytic Sample (Restricted to complete cases on significant predictors only and at least one outcome) vs. Full Sample.

Warning in chisq.test(d\$split, d[[i]]): Chi-squared approximation may be incorrect

Warning in chisq.test(d\$split, d[[i]]): Chi-squared approximation may be incorrect

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	In Larger Analysis Sample		
	FALSE n = 30	TRUE n = 158	P-Value
Age_Decades			0.065
	4.16 (1.29)	3.65 (1.22)	
Age_Groups			0.066
18-30	5 (16.7%)	62 (39.2%)	
31-40	5 (16.7%)	35 (22.2%)	
41-50	10 (33.3%)	31 (19.6%)	
51+	7 (23.3%)	25 (15.8%)	
NA	3 (10%)	5 (3.2%)	
Ethnic_Code			0.421
Caucasian	13 (43.3%)	110 (69.6%)	
Hispanic/Latino	6 (20%)	26 (16.5%)	
Other	4 (13.3%)	22 (13.9%)	
NA	7 (23.3%)	0 (0%)	
Education_3cat			0.868
High school graduate/GED/No degree	10 (33.3%)	64 (40.5%)	
Some college	7 (23.3%)	34 (21.5%)	
Tech./College/Grad Degree	10 (33.3%)	54 (34.2%)	
NA	3 (10%)	6 (3.8%)	
Income_10K			0.293
	2.29 (2.63)	1.71 (1.56)	
Gender			0.395
Male	3 (10%)	29 (18.4%)	
Female	27 (90%)	129 (81.6%)	
NA	0 (0%)	0 (0%)	
Divorced_Dichotomous			0.273
Never Divorced	9 (30%)	68 (43%)	
Divorced	17 (56.7%)	72 (45.6%)	
NA	4 (13.3%)	18 (11.4%)	
FinancialWorry_cat			0.988
Never, Once in a While, Hardly Ever	6 (20%)	34 (21.5%)	

Often	10 (33.3%)	52 (32.9%)	
Almost all the time	13 (43.3%)	70 (44.3%)	
NA	1 (3.3%)	2 (1.3%)	
Prior_RshpEducation_collapsed			0.918
None	11 (36.7%)	78 (49.4%)	
Some/A lot	13 (43.3%)	80 (50.6%)	
NA	6 (20%)	0 (0%)	
Number_Attended			0.164
One Session	14 (46.7%)	53 (33.5%)	
Two Sessions	4 (13.3%)	41 (25.9%)	
Three Sessions	9 (30%)	64 (40.5%)	
NA	3 (10%)	0 (0%)	
Dosage			0.623
Partial	18 (60%)	94 (59.5%)	
Full	9 (30%)	64 (40.5%)	
NA	3 (10%)	0 (0%)	
Healthy_Rel_Skills_Change			0.394
	1.02 (1.14)	1.30 (0.99)	
Partner_Selection_Change			0.558
	1.39 (1.60)	1.68 (1.16)	
Past_Rel_Behav_Change			0.376
	0.83 (1.15)	1.13 (0.96)	
Rel_Behav_Attit_Change			0.684
	0.82 (1.17)	0.96 (0.93)	
Healthy_Rel_Before.n			0.131
	3.56 (1.26)	3.04 (1.01)	
Communicate_Before.n			0.638
	3.44 (1.21)	3.29 (0.94)	
ConflictManagement_Before.n			0.456
	3.43 (1.22)	3.17 (0.98)	
Healthy_Rel.n			0.671
	4.45 (0.76)	4.53 (0.55)	
Communicate.n			0.869
	4.45 (0.60)	4.47 (0.61)	
ConflictManagement.n			0.185
	4.05 (1.09)	4.37 (0.68)	
RightPartner_Before.n			0.29
	3.18 (1.33)	2.81 (1.01)	
LearnPartner_Before.n			0.42
	3.21 (1.42)	2.89 (1.07)	
PaceRelationship_Before.n			0.27
	3.21 (1.37)	2.78 (1.07)	
WarningSigns_Before.n			0.645
	3.14 (1.41)	2.96 (1.09)	
RightPartner.n			0.761
	4.37 (0.83)	4.43 (0.66)	
LearnPartner.n			0.34
	4.37 (1.01)	4.60 (0.59)	

PaceRelationship.n			0.787
	4.53 (0.61)	4.57 (0.61)	
WarningSigns.n			0.522
	4.50 (0.61)	4.59 (0.60)	
LearnedGrowingUp_Before.n			0.725
	3.54 (1.51)	3.39 (1.02)	
PastRelationships_Before.n			0.517
	3.62 (1.39)	3.35 (1.06)	
GetAlongParents_Before.n			0.576
	3.77 (1.54)	3.52 (1.10)	
FriendshipsAreLike_Before.n			0.591
	3.64 (1.45)	3.42 (1.10)	
LearnedGrowingUp.n			0.255
	4.27 (1.03)	4.54 (0.60)	
PastRelationships.n			0.125
	4.18 (1.18)	4.59 (0.72)	
GetAlongParents.n			0.763
	4.45 (0.96)	4.52 (0.69)	
FriendshipsAreLike.n			0.759
	4.48 (0.93)	4.54 (0.70)	
Fights_Before.n			0.679
	3.43 (1.34)	3.58 (1.08)	
FeelingsHurt_Before.n			0.968
	3.64 (1.39)	3.63 (1.01)	
RightandWrong_Before.n			0.725
	3.64 (1.39)	3.78 (0.94)	
Fights.n			0.247
	4.20 (1.24)	4.54 (0.78)	
FeelingsHurt.n			0.593
	4.52 (0.93)	4.64 (0.61)	
RightandWrong.n			0.33
	4.48 (0.98)	4.69 (0.57)	
In Larger Analysis Sample			<.001
FALSE	30 (100%)	0 (0%)	
TRUE	0 (0%)	158 (100%)	
NA	0 (0%)	0 (0%)	

1.3 Categorical Outcomes: Means and Standard Deviations. Also Testing for Difference in Analytic Sample vs. Full Sample.

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	In Analysis Sample3		
	FALSE	TRUE	P-Value
	n = 54	n = 134	
Age_Decades			0.522
	3.83 (1.36)	3.69 (1.20)	
Age_Groups			0.575
18-30	17 (31.5%)	50 (37.3%)	
31-40	8 (14.8%)	32 (23.9%)	
41-50	10 (18.5%)	31 (23.1%)	
51+	11 (20.4%)	21 (15.7%)	
NA	8 (14.8%)	0 (0%)	
Ethnic_Code			0.909
Caucasian	32 (59.3%)	91 (67.9%)	
Hispanic/Latino	9 (16.7%)	23 (17.2%)	
Other	6 (11.1%)	20 (14.9%)	
NA	7 (13%)	0 (0%)	
Education_3cat			0.854
High school graduate/GED/No degree	17 (31.5%)	57 (42.5%)	
Some college	11 (20.4%)	30 (22.4%)	
Tech./College/Grad Degree	17 (31.5%)	47 (35.1%)	
NA	9 (16.7%)	0 (0%)	
Income_10K			0.538
	1.97 (2.10)	1.74 (1.64)	
Gender			1
Male	9 (16.7%)	23 (17.2%)	
Female	45 (83.3%)	111 (82.8%)	
NA	0 (0%)	0 (0%)	
Divorced_Dichotomous			0.355
Never Divorced	12 (22.2%)	65 (48.5%)	
Divorced	20 (37%)	69 (51.5%)	

NA	22 (40.7%)	0 (0%)	
FinancialWorry_cat			0.448
Never, Once in a While, Hardly Ever	14 (25.9%)	26 (19.4%)	
Often	17 (31.5%)	45 (33.6%)	
Almost all the time	20 (37%)	63 (47%)	
NA	3 (5.6%)	0 (0%)	
Prior_RshpEducation_collapsed			1
None	23 (42.6%)	66 (49.3%)	
Some/A lot	25 (46.3%)	68 (50.7%)	
NA	6 (11.1%)	0 (0%)	
Number_Attended			0.237
One Session	21 (38.9%)	46 (34.3%)	
Two Sessions	8 (14.8%)	37 (27.6%)	
Three Sessions	22 (40.7%)	51 (38.1%)	
NA	3 (5.6%)	0 (0%)	
Dosage			0.643
Partial	29 (53.7%)	83 (61.9%)	
Full	22 (40.7%)	51 (38.1%)	
NA	3 (5.6%)	0 (0%)	
Healthy_Rel_Before.3c			0.612
3	23 (42.6%)	82 (61.2%)	
4	16 (29.6%)	43 (32.1%)	
5	3 (5.6%)	6 (4.5%)	
NA	12 (22.2%)	3 (2.2%)	
Communicate_Before.3c			0.094
3	18 (33.3%)	74 (55.2%)	
4	18 (33.3%)	49 (36.6%)	
5	6 (11.1%)	7 (5.2%)	
NA	12 (22.2%)	4 (3%)	
ConflictManagement_Before.3c			0.098
3	18 (33.3%)	78 (58.2%)	
4	19 (35.2%)	41 (30.6%)	
5	4 (7.4%)	6 (4.5%)	
NA	13 (24.1%)	9 (6.7%)	
Healthy_Rel.3c			0.749
3	2 (3.7%)	5 (3.7%)	
4	16 (29.6%)	55 (41%)	
5	27 (50%)	71 (53%)	
NA	9 (16.7%)	3 (2.2%)	
Communicate.3c			0.327
3	1 (1.9%)	7 (5.2%)	
4	16 (29.6%)	59 (44%)	
5	27 (50%)	64 (47.8%)	
NA	10 (18.5%)	4 (3%)	
ConflictManagement.3c			0.16
3	3 (5.6%)	18 (13.4%)	
4	15 (27.8%)	58 (43.3%)	
5	26 (48.1%)	58 (43.3%)	

NA	10 (18.5%)	0 (0%)	
RightPartner_Before.3c			0.027
3	26 (48.1%)	99 (73.9%)	
4	12 (22.2%)	29 (21.6%)	
5	4 (7.4%)	2 (1.5%)	
NA	12 (22.2%)	4 (3%)	
LearnPartner_Before.3c			0.003
3	20 (37%)	91 (67.9%)	
4	14 (25.9%)	37 (27.6%)	
5	5 (9.3%)	2 (1.5%)	
NA	15 (27.8%)	4 (3%)	
PaceRelationship_Before.3c			0.077
3	25 (46.3%)	95 (70.9%)	
4	12 (22.2%)	32 (23.9%)	
5	4 (7.4%)	3 (2.2%)	
NA	13 (24.1%)	4 (3%)	
WarningSigns_Before.3c			0.111
3	21 (38.9%)	84 (62.7%)	
4	16 (29.6%)	41 (30.6%)	
5	4 (7.4%)	4 (3%)	
NA	13 (24.1%)	5 (3.7%)	
RightPartner.3c			0.548
3	3 (5.6%)	12 (9%)	
4	15 (27.8%)	54 (40.3%)	
5	26 (48.1%)	65 (48.5%)	
NA	10 (18.5%)	3 (2.2%)	
LearnPartner.3c			0.447
3	1 (1.9%)	7 (5.2%)	
4	11 (20.4%)	44 (32.8%)	
5	30 (55.6%)	81 (60.4%)	
NA	12 (22.2%)	2 (1.5%)	
PaceRelationship.3c			0.393
3	1 (1.9%)	8 (6%)	
4	12 (22.2%)	46 (34.3%)	
5	30 (55.6%)	79 (59%)	
NA	11 (20.4%)	1 (0.7%)	
WarningSigns.3c			0.351
3	1 (1.9%)	5 (3.7%)	
4	11 (20.4%)	48 (35.8%)	
5	31 (57.4%)	79 (59%)	
NA	11 (20.4%)	2 (1.5%)	
LearnedGrowingUp_Before.3c			0.095
3	15 (27.8%)	68 (50.7%)	
4	16 (29.6%)	44 (32.8%)	
5	9 (16.7%)	14 (10.4%)	
NA	14 (25.9%)	8 (6%)	
PastRelationships_Before.3c			0.303
3	18 (33.3%)	68 (50.7%)	

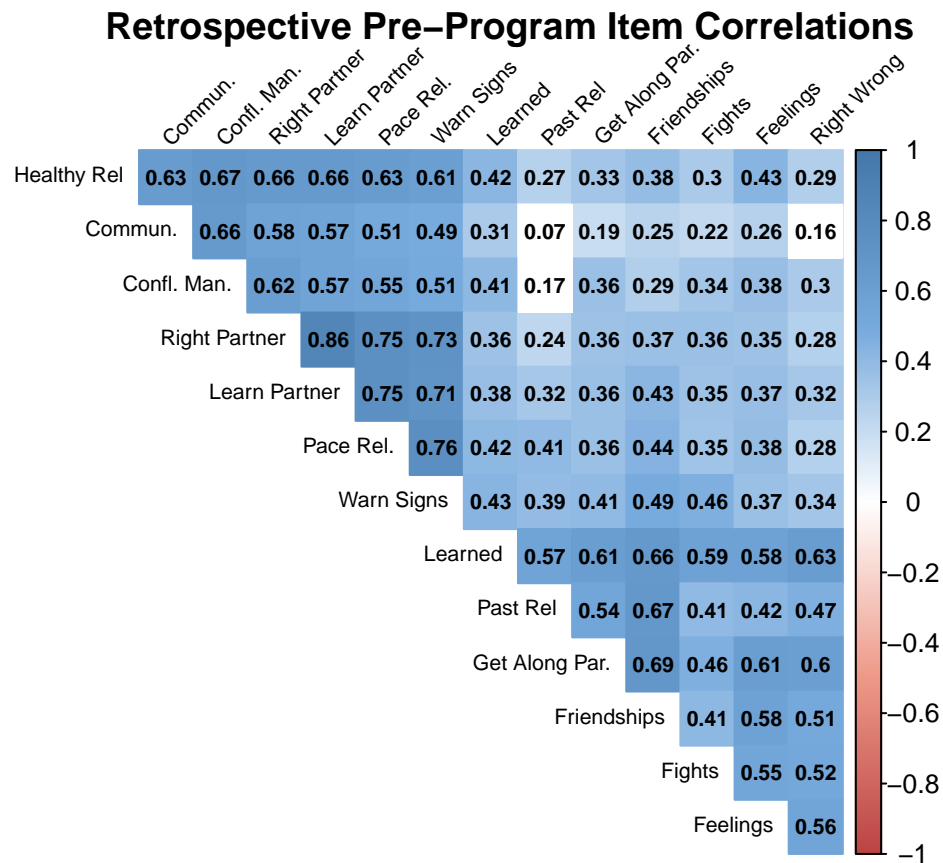
4	14 (25.9%)	41 (30.6%)	
5	9 (16.7%)	16 (11.9%)	
NA	13 (24.1%)	9 (6.7%)	
GetAlongParents_Before.3c			0.137
3	13 (24.1%)	63 (47%)	
4	16 (29.6%)	35 (26.1%)	
5	11 (20.4%)	27 (20.1%)	
NA	14 (25.9%)	9 (6.7%)	
FriendshipsAreLike_Before.3c			0.288
3	16 (29.6%)	67 (50%)	
4	15 (27.8%)	36 (26.9%)	
5	10 (18.5%)	23 (17.2%)	
NA	13 (24.1%)	8 (6%)	
LearnedGrowingUp.3c			0.364
3	1 (1.9%)	11 (8.2%)	
4	16 (29.6%)	46 (34.3%)	
5	28 (51.9%)	75 (56%)	
NA	9 (16.7%)	2 (1.5%)	
PastRelationships.3c			0.876
3	3 (5.6%)	10 (7.5%)	
4	11 (20.4%)	36 (26.9%)	
5	32 (59.3%)	87 (64.9%)	
NA	8 (14.8%)	1 (0.7%)	
GetAlongParents.3c			0.607
3	2 (3.7%)	12 (9%)	
4	14 (25.9%)	41 (30.6%)	
5	29 (53.7%)	80 (59.7%)	
NA	9 (16.7%)	1 (0.7%)	
FriendshipsAreLike.3c			0.502
3	2 (3.7%)	8 (6%)	
4	12 (22.2%)	45 (33.6%)	
5	32 (59.3%)	79 (59%)	
NA	8 (14.8%)	2 (1.5%)	
Fights_Before.3c			0.368
3	13 (24.1%)	56 (41.8%)	
4	18 (33.3%)	47 (35.1%)	
5	10 (18.5%)	24 (17.9%)	
NA	13 (24.1%)	7 (5.2%)	
FeelingsHurt_Before.3c			0.058
3	12 (22.2%)	51 (38.1%)	
4	16 (29.6%)	56 (41.8%)	
5	13 (24.1%)	19 (14.2%)	
NA	13 (24.1%)	8 (6%)	
RightandWrong_Before.3c			0.162
3	12 (22.2%)	45 (33.6%)	
4	15 (27.8%)	57 (42.5%)	
5	14 (25.9%)	25 (18.7%)	
NA	13 (24.1%)	7 (5.2%)	

Fights.3c			0.87
3	3 (5.6%)	12 (9%)	
4	12 (22.2%)	35 (26.1%)	
5	30 (55.6%)	84 (62.7%)	
NA	9 (16.7%)	3 (2.2%)	
FeelingsHurt.3c			0.731
3	1 (1.9%)	6 (4.5%)	
4	12 (22.2%)	37 (27.6%)	
5	33 (61.1%)	89 (66.4%)	
NA	8 (14.8%)	2 (1.5%)	
RightandWrong.3c			0.705
3	2 (3.7%)	7 (5.2%)	
4	8 (14.8%)	30 (22.4%)	
5	36 (66.7%)	95 (70.9%)	
NA	8 (14.8%)	2 (1.5%)	
In Analysis Sample3			<.001
FALSE	54 (100%)	0 (0%)	
TRUE	0 (0%)	134 (100%)	
NA	0 (0%)	0 (0%)	

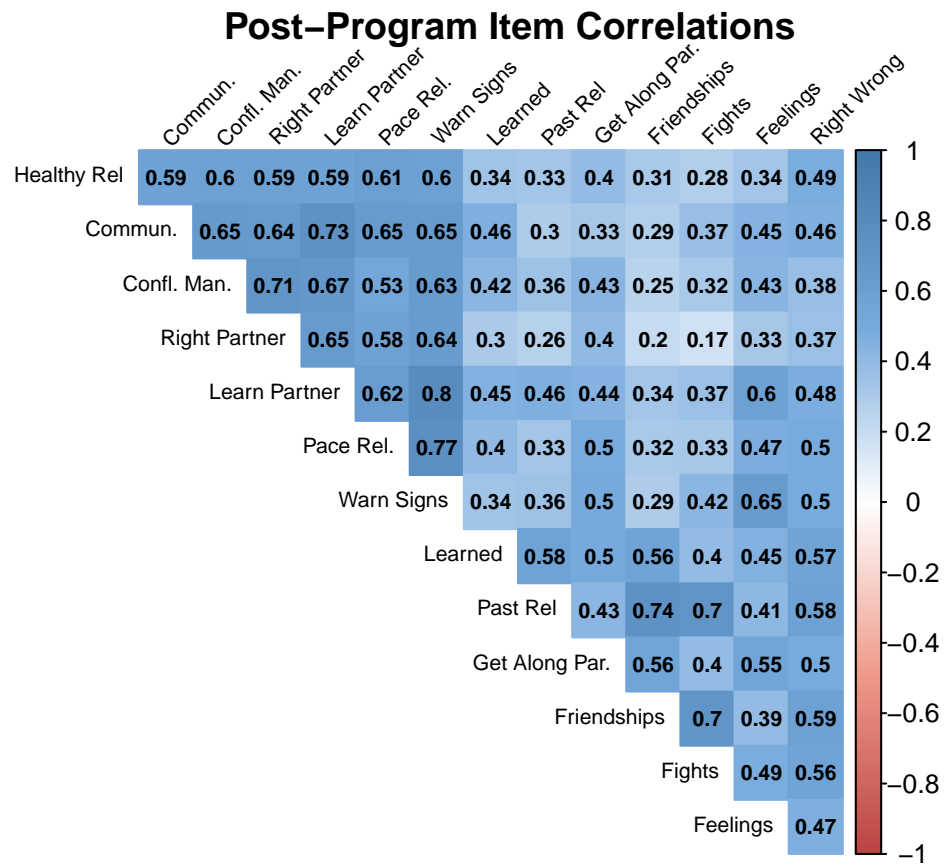
1.4 Correlations

1.4.1 Outcomes

1.4.1.1 Retrospective Pre-Program Item-Level

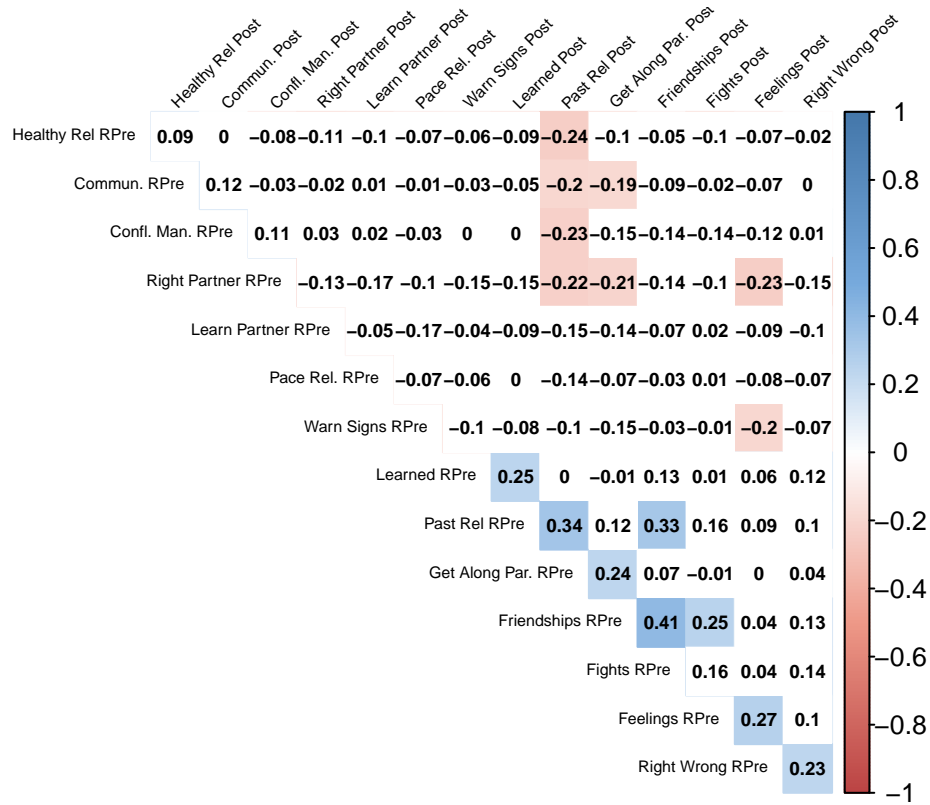


1.4.1.2 Post-Program Item-Level

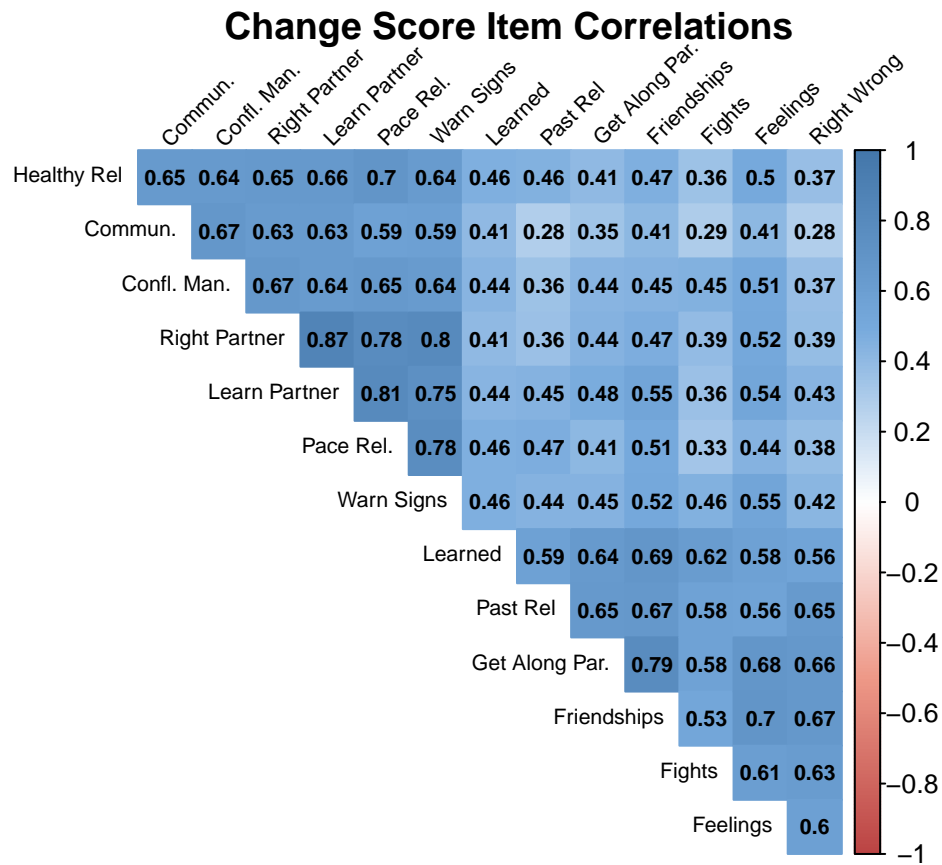


1.4.1.3 Retrospective Pre-Program to Post-Program Item-Level

Retrospective Pre-Post Program Item Correlations



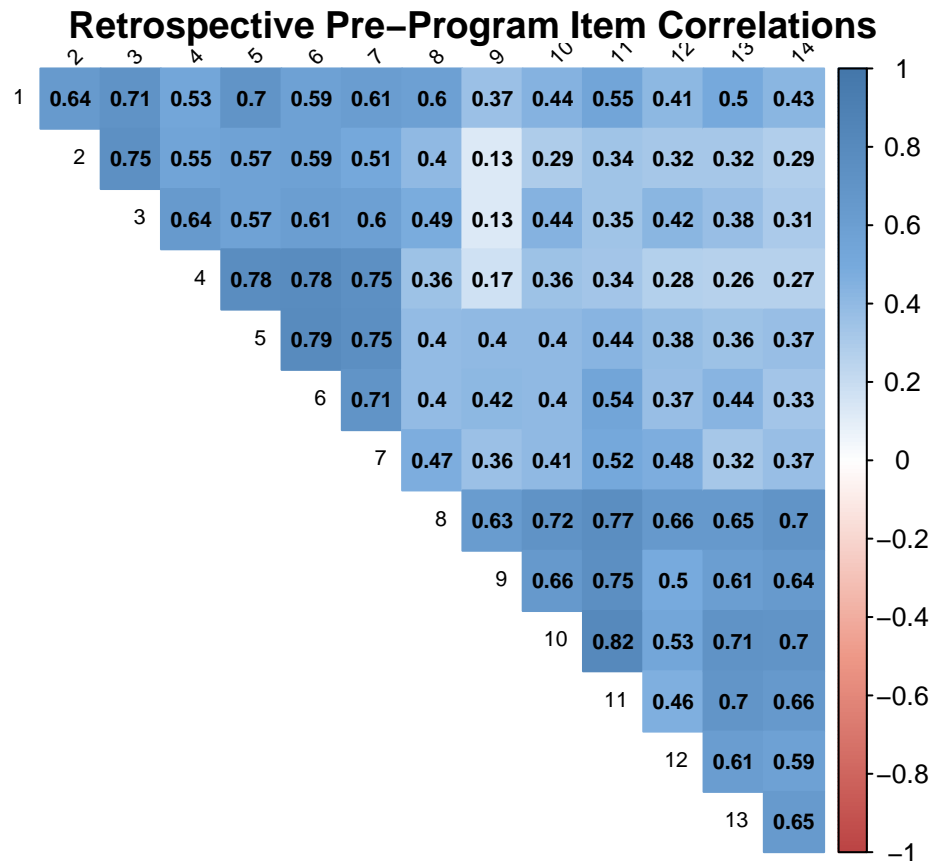
1.4.1.4 Change Scores at Item Level



1.4.1.5 Categorical Retrospective Pre-Program Item-Level

Converted non-numeric input to numeric

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 60 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

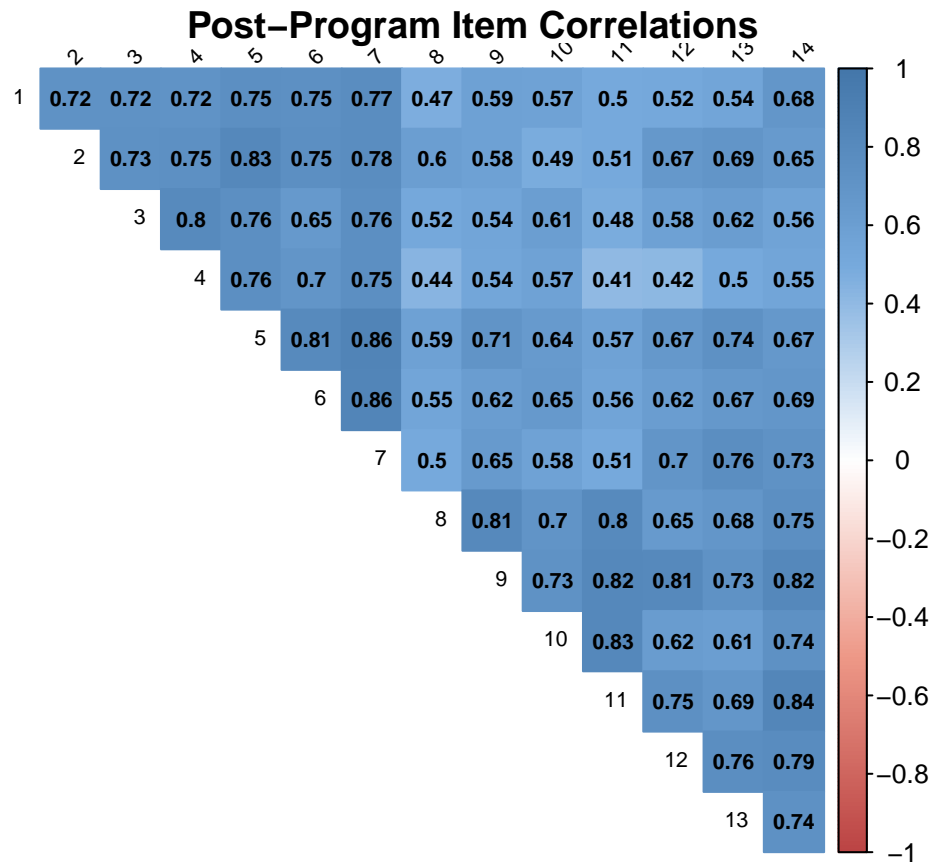


- Items
 1. Healthy Rel
 2. Commun.
 3. Confl. Man.
 4. Right Partner
 5. Learn Partner
 6. Pace Rel.
 7. Warn Signs
 8. Learned
 9. Past Rel
 10. Get Along Par.
 11. Friendships
 12. Fights
 13. Feelings
 14. Right Wrong

1.4.1.6 Categorical Post-Program Item-Level

Converted non-numeric input to numeric

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 48 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.



- Items
 1. Healthy Rel
 2. Commun.
 3. Confl. Man.
 4. Right Partner
 5. Learn Partner
 6. Pace Rel.
 7. Warn Signs
 8. Learned
 9. Past Rel
 10. Get Along Par.
 11. Friendships
 12. Fights
 13. Feelings
 14. Right Wrong

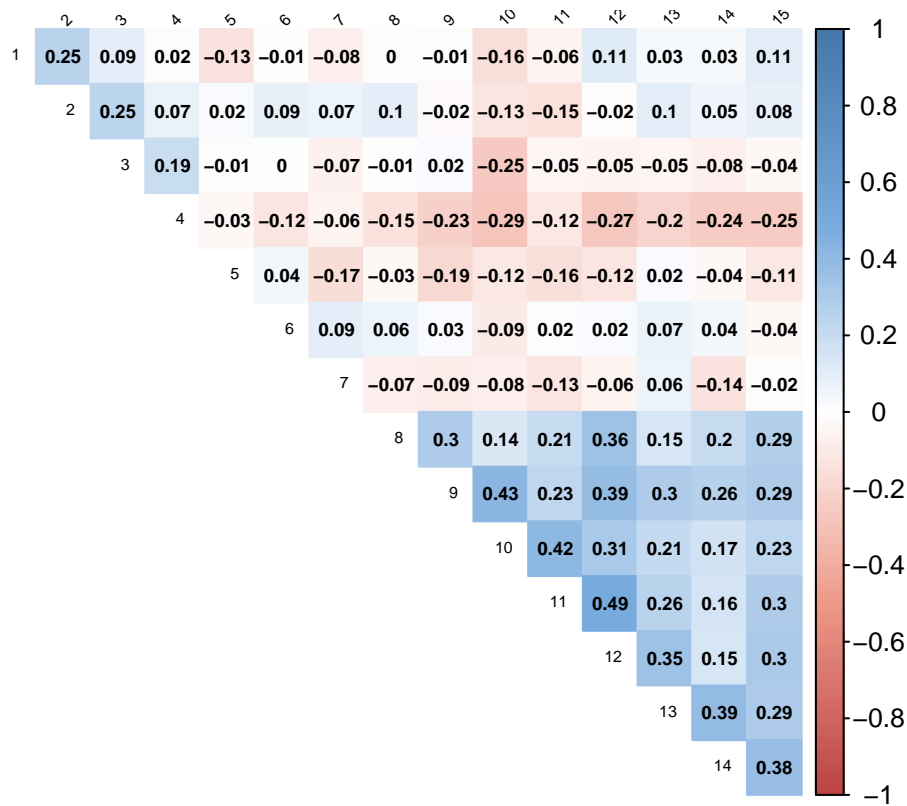
1.4.1.7 Retrospective Pre-Program to Post-Program Item-Level

Converted non-numeric input to numeric

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 239 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in cor.smooth(mat): Matrix was not positive definite, smoothing was done

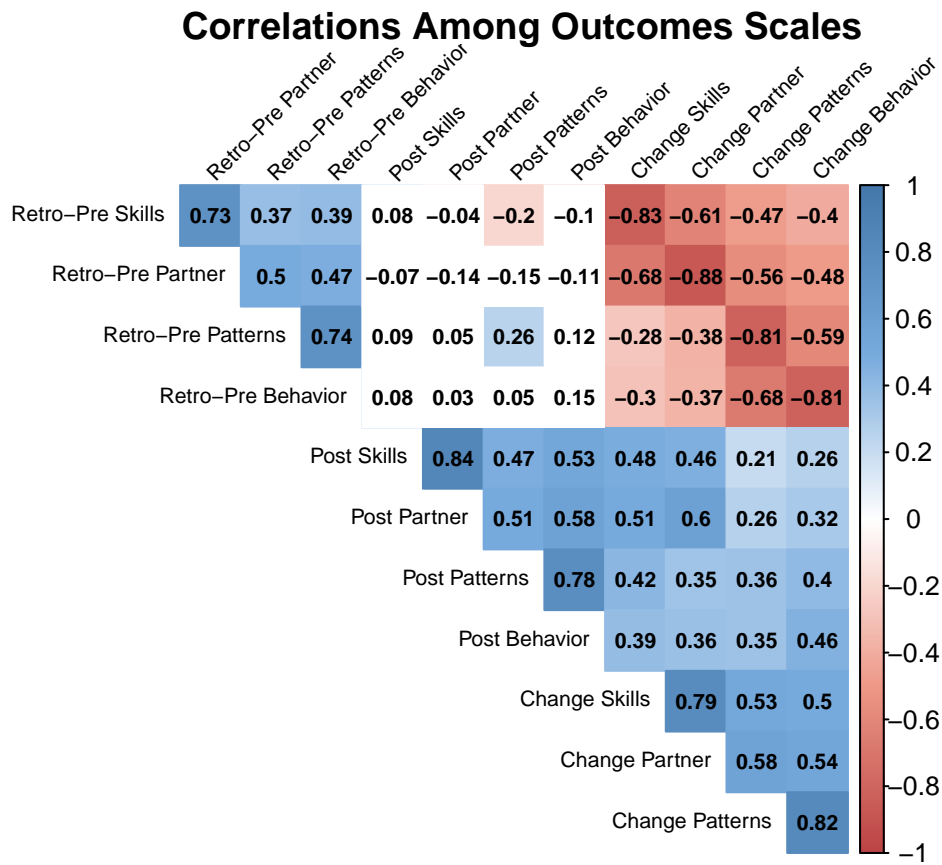
Retrospective Pre-Post Program Item Correlations



- Row Items Retrospective-Pre
 1. Healthy Rel
 2. Commun.
 3. Confl. Man.
 4. Right Partner
 5. Learn Partner
 6. Pace Rel.
 7. Warn Signs
 8. Learned
 9. Past Rel
 10. Get Along Par.
 11. Friendships
 12. Fights

- 13. Feelings
- 14. Right Wrong
- Column Items Post
 - 2. Healthy Rel
 - 3. Commun.
 - 4. Confl. Man.
 - 5. Right Partner
 - 6. Learn Partner
 - 7. Pace Rel.
 - 8. Warn Signs
 - 9. Learned
- 10. Past Rel
- 11. Get Along Par.
- 12. Friendships
- 13. Fights
- 14. Feelings
- 15. Right Wrong

1.4.1.8 Outcomes Scales



1.5 Multicollinearity of Predictors

- Warnings Signs

- VIF greater than 10 is cause for concern.
- Average VIF substantially greater than 1
- Tolerance below 0.1 indicates serious problem, below 0.2 potential problems.

1.5.1 Checking Multicollinearity when Using Dosage as 3 levels and Age as Continuous

1.5.1.1 VIF

	GVIF	Df	GVIF..1..2.Df..
Age (Decades)	1.558	1	1.248
Ethnic_Code	1.271	2	1.062
Education_3cat	1.653	2	1.134
Prior_RshpEducation	1.341	2	1.076
FinancialWorry_cat	1.396	2	1.087
Income (10K)	1.267	1	1.126
Number_Attended	1.279	2	1.063
Gender	1.158	1	1.076
Divorced_Dichotomous	1.335	1	1.155

- Mean VIF is 1.3439158

1.5.1.2 Tolerance

	Tolerance
Age (Decades)	0.642
Ethnic_Code	0.787
Education_3cat	0.605
Prior_RshpEducation	0.746
FinancialWorry_cat	0.716
Income (10K)	0.789
Number_Attended	0.782
Gender	0.863
Divorced_Dichotomous	0.749

1.5.2 Checking Multicollinearity when Using Dosage as 2 levels, Age as Continuous

1.5.2.1 VIF

	GVIF	Df	GVIF..1..2.Df..
Age (Decades)	1.557	1	1.248
Ethnic_Code	1.258	2	1.059
Education_3cat	1.639	2	1.132
Prior_RshpEducation	1.293	2	1.066
FinancialWorry_cat	1.347	2	1.077
Income (10K)	1.266	1	1.125
Dosage	1.133	1	1.064
Gender	1.139	1	1.067
Divorced_Dichotomous	1.335	1	1.155

- Mean VIF is 1.294849

1.5.2.2 Tolerance

	Tolerance
Age (Decades)	0.642
Ethnic_Code	0.795
Education_3cat	0.61
Prior_RshpEducation	0.774
FinancialWorry_cat	0.742
Income (10K)	0.79
Dosage	0.883
Gender	0.878
Divorced_Dichotomous	0.749

1.6 Frequencies

1.6.1 Frequencies of Predictors

1.6.1.1 Age

- Age (Decades)

Age (Decades)	Freq	CumFreq	Percent	CumPerc
1.8	1	1	0.75%	0.75%
1.9	5	6	3.73%	4.48%
2.1	1	7	0.75%	5.22%
2.2	5	12	3.73%	8.96%
2.3	9	21	6.72%	15.67%
2.4	5	26	3.73%	19.40%
2.5	5	31	3.73%	23.13%
2.6	2	33	1.49%	24.63%
2.7	3	36	2.24%	26.87%
2.8	4	40	2.99%	29.85%
...
5.1	2	115	1.49%	85.82%
5.2	1	116	0.75%	86.57%
5.3	2	118	1.49%	88.06%
5.4	3	121	2.24%	90.30%
5.5	1	122	0.75%	91.04%
5.7	5	127	3.73%	94.78%
5.8	1	128	0.75%	95.52%
5.9	1	129	0.75%	96.27%
6	1	130	0.75%	97.01%
6.2	1	131	0.75%	97.76%
6.3	3	134	2.24%	100.00%

- Age Groups

Age_Groups	Freq	CumFreq	Percent	CumPerc
18-30	50	50	37.31%	37.31%
31-40	32	82	23.88%	61.19%
41-50	31	113	23.13%	84.33%
51+	21	134	15.67%	100.00%

1.6.1.2 Ethnicity

- Collapsing categories

Ethnic_Code	Freq	CumFreq	Percent	CumPerc
Caucasian	91	91	67.91%	67.91%
Hispanic/Latino	23	114	17.16%	85.07%
Other	20	134	14.93%	100.00%

- Collapsing categories to two

Race_Dichotomous	Freq	CumFreq	Percent	CumPerc
White	91	91	67.91%	67.91%
Minority	43	134	32.09%	100.00%

1.6.1.3 Education

- Collapsing to three

Education_3cat	Freq	CumFreq	Percent	CumPerc
High school graduate/GED/No degree	57	57	42.54%	42.54%
Some college	30	87	22.39%	64.93%
Tech./College/Grad Degree	47	134	35.07%	100.00%

1.6.1.4 Income in \$10,000

Income (10K)	Freq	CumFreq	Percent	CumPerc	Valid	CumValid
0	10	10	7.46%	7.46%	8.06%	8.06%
0.1	4	14	2.99%	10.45%	3.23%	11.29%
0.2	4	18	2.99%	13.43%	3.23%	14.52%
0.25	3	21	2.24%	15.67%	2.42%	16.94%
0.3	4	25	2.99%	18.66%	3.23%	20.16%
0.4	2	27	1.49%	20.15%	1.61%	21.77%
0.5	17	44	12.69%	32.84%	13.71%	35.48%
0.7	3	47	2.24%	35.07%	2.42%	37.90%
0.75	1	48	0.75%	35.82%	0.81%	38.71%
0.8	1	49	0.75%	36.57%	0.81%	39.52%
...
4	6	113	4.48%	84.33%	4.84%	91.13%
4.5	2	115	1.49%	85.82%	1.61%	92.74%
4.7	1	116	0.75%	86.57%	0.81%	93.55%
4.9	1	117	0.75%	87.31%	0.81%	94.35%
5	2	119	1.49%	88.81%	1.61%	95.97%
5.4	1	120	0.75%	89.55%	0.81%	96.77%
5.5	1	121	0.75%	90.30%	0.81%	97.58%
6	1	122	0.75%	91.04%	0.81%	98.39%
6.5	1	123	0.75%	91.79%	0.81%	99.19%
7.5	1	124	0.75%	92.54%	0.81%	100.00%
Missing	10	134	7.46%	100.00%		

1.6.1.5 Gender

Gender	Freq	CumFreq	Percent	CumPerc
Male	23	23	17.16%	17.16%
Female	111	134	82.84%	100.00%

1.6.1.6 Divorced

Divorced_Dichotomous	Freq	CumFreq	Percent	CumPerc
Never Divorced	65	65	48.51%	48.51%
Divorced	69	134	51.49%	100.00%

1.6.1.7 Financial Strain

- Collapsed

FinancialWorry_cat	Freq	CumFreq	Percent	CumPerc
Never, Once in a While, Hardly Ever	26	26	19.40%	19.40%
Often	45	71	33.58%	52.99%
Almost all the time	63	134	47.01%	100.00%

1.6.1.8 Prior Relationship Education

- 2 categories

Prior_RshpEducation_collapsed	Freq	CumFreq	Percent	CumPerc
None	66	66	49.25%	49.25%
Some/A lot	68	134	50.75%	100.00%

1.6.1.9 Dosage

- All Categories

Number_Attended	Freq	CumFreq	Percent	CumPerc
One Session	46	46	34.33%	34.33%
Two Sessions	37	83	27.61%	61.94%
Three Sessions	51	134	38.06%	100.00%

- Dosage: Full vs. Partial

Dosage	Freq	CumFreq	Percent	CumPerc
Partial	83	83	61.94%	61.94%
Full	51	134	38.06%	100.00%

1.6.2 Frequencies of Outcomes Variables at Item Level

1.6.2.1 Perceived Knowledge About Relationship Skills

1.6.2.1.1 Retro-Pre

Value	Healthy Rel.	Communicate	Confl. Mng.
1	13	4	9
2	22	21	17
3	47	49	52
4	43	49	41
5	6	7	6
Valid Total	131	130	125
—	—	—	—
Missing	3	4	9
Total	134	134	134

1.6.2.1.2 Post

Value	Healthy Rel.	Communicate	Confl. Mng.
1	0	0	1
2	0	1	2
3	5	6	15
4	55	59	58
5	71	64	58
Valid Total	131	130	134
—	—	—	—
Missing	3	4	0
Total	134	134	134

1.6.2.1.3 Change

Value	Healthy Rel.	Communicate	Confl. Mng.
-2	1	1	2
-1	0	3	3
0	20	26	29
1	51	55	45
2	37	28	34
3	9	12	8
4	10	2	4
Valid Total	128	127	125
—	—	—	—
Missing	1	2	4
Total	129	129	129

1.6.2.1.4 Categorical Retro-Pre

Value	Healthy Rel.	Communicate	Confl. Mng.
3	82	74	78
4	43	49	41
5	6	7	6
Valid Total	131	130	125
—	—	—	—
Missing	3	4	9
Total	134	134	134

1.6.2.1.5 Categorical Post

Value	Healthy Rel.	Communicate	Confl. Mng.
3	5	7	18
4	55	59	58
5	71	64	58
Valid Total	131	130	134
—	—	—	—
Missing	3	4	0
Total	134	134	134

1.6.2.2 Perceived Knowledge About Partner Selection

1.6.2.2.1 Retro-Pre

Value	Right Partner	Learn Partner	Pace Rel.	Warning Signs
1	18	18	19	15
2	25	26	29	29
3	56	47	47	40
4	29	37	32	41
5	2	2	3	4
Valid Total	130	130	130	129
—	—	—	—	—
Missing	4	4	4	5
Total	134	134	134	134

1.6.2.2.2 Post

Value	Right Partner	Learn Partner	Pace Rel.	Warning Signs
1	0	1	0	0
2	2	1	1	2
3	10	5	7	3
4	54	44	46	48
5	65	81	79	79
Valid Total	131	132	133	132
—	—	—	—	—
Missing	3	2	1	2
Total	134	134	134	134

1.6.2.2.3 Change

Value	Right Partner	Learn Partner	Pace Rel.	Warning Signs
-2	1	1	2	1
-1	2	1	1	1
0	20	15	13	19
1	37	39	43	38
2	38	42	35	35
3	16	15	21	23
4	13	15	14	10
Valid Total	127	128	129	128
—	—	—	—	—
Missing	2	1	0	1
Total	129	129	129	129

1.6.2.2.4 Categorical Retro-pre

Value	Right Partner	Learn Partner	Pace Rel.	Warning Signs
3	99	91	95	84
4	29	37	32	41
5	2	2	3	4
Valid Total	130	130	130	129
—	—	—	—	—
Missing	4	4	4	5
Total	134	134	134	134

1.6.2.2.5 Categorical Post

Value	Right Partner	Learn Partner	Pace Rel.	Warning Signs
3	12	7	8	5
4	54	44	46	48
5	65	81	79	79
Valid Total	131	132	133	132
—	—	—	—	—
Missing	3	2	1	2
Total	134	134	134	134

1.6.2.3 Perceived Importance of Knowledge About a Potential Partner's Relationships Patterns

1.6.2.3.1 Retro-Pre

Value	Ln. Grow. Up	Past Rels.	Get Along Pars.	Friendships
1	7	7	6	6
2	16	19	16	21
3	45	42	41	40
4	44	41	35	36
5	14	16	27	23
Valid Total	126	125	125	126
—	—	—	—	—
Missing	8	9	9	8
Total	134	134	134	134

1.6.2.3.2 Post

Value	Ln. Grow. Up	Past Rels.	Get Along Pars.	Friendships
1	0	2	1	2
2	0	3	0	0
3	11	5	11	6
4	46	36	41	45
5	75	87	80	79
Valid Total	132	133	133	132
—	—	—	—	—
Missing	2	1	1	2
Total	134	134	134	134

1.6.2.3.3 Change

Value	Lrn. Grow. Up	Past Rels.	Get Along Pars.	Friendships
-2	0	0	1	0
-1	3	2	3	1
0	34	29	40	40
1	41	47	41	40
2	31	29	27	31
3	14	14	7	9
4	1	3	5	3
Valid Total	124	124	124	124
—	—	—	—	—
Missing	5	5	5	5
Total	129	129	129	129

1.6.2.3.4 Categorical Retro-Pre

Value	Lrn. Grow. Up	Past Rels.	Get Along Pars.	Friendships
3	68	68	63	67
4	44	41	35	36
5	14	16	27	23
Valid Total	126	125	125	126
—	—	—	—	—
Missing	8	9	9	8
Total	134	134	134	134

1.6.2.3.5 Categorical Post

Value	Lrn. Grow. Up	Past Rels.	Get Along Pars.	Friendships
3	11	10	12	8
4	46	36	41	45
5	75	87	80	79
Valid Total	132	133	133	132
—	—	—	—	—
Missing	2	1	1	2
Total	134	134	134	134

1.6.2.4 Perceived Importance of Knowledge About a Potential Partner's Relationship Behavior and Attitudes

1.6.2.4.1 Retro-Pre

Value	Fights	Feelings Hurt	Right and Wrong
1	8	5	2
2	13	15	9
3	35	31	34
4	47	56	57
5	24	19	25
Valid Total	127	126	127
—	—	—	—
Missing	7	8	7
Total	134	134	134

1.6.2.4.2 Post

Value	Fights	Feelings Hurt	Right and Wrong
1	2	1	0
2	2	0	1
3	8	5	6
4	35	37	30
5	84	89	95
Valid Total	131	132	132
—	—	—	—
Missing	3	2	2
Total	134	134	134

1.6.2.4.3 Change

Value	Fights	Feelings Hurt	Right and Wrong
-2	2	0	1
-1	4	2	1
0	35	38	42
1	48	49	53
2	18	23	20
3	12	8	6
4	4	4	2
Valid Total	124	124	125
—	—	—	—
Missing	5	5	4
Total	129	129	129

1.6.2.4.4 Categorical Retro-Pre

Value	Fights	Feelings Hurt	Right and Wrong
3	56	51	45
4	47	56	57
5	24	19	25
Valid Total	127	126	127
—	—	—	—
Missing	7	8	7
Total	134	134	134

1.6.2.4.5 Categorical Post

Value	Fights	Feelings Hurt	Right and Wrong
3	12	6	7
4	35	37	30
5	84	89	95
Valid Total	131	132	132
—	—	—	—
Missing	3	2	2
Total	134	134	134

1.6.3 Frequencies of Change in Outcomes Variables at Scale Level

- Collapsing Categories for Display of Frequencies, but not for Analyses

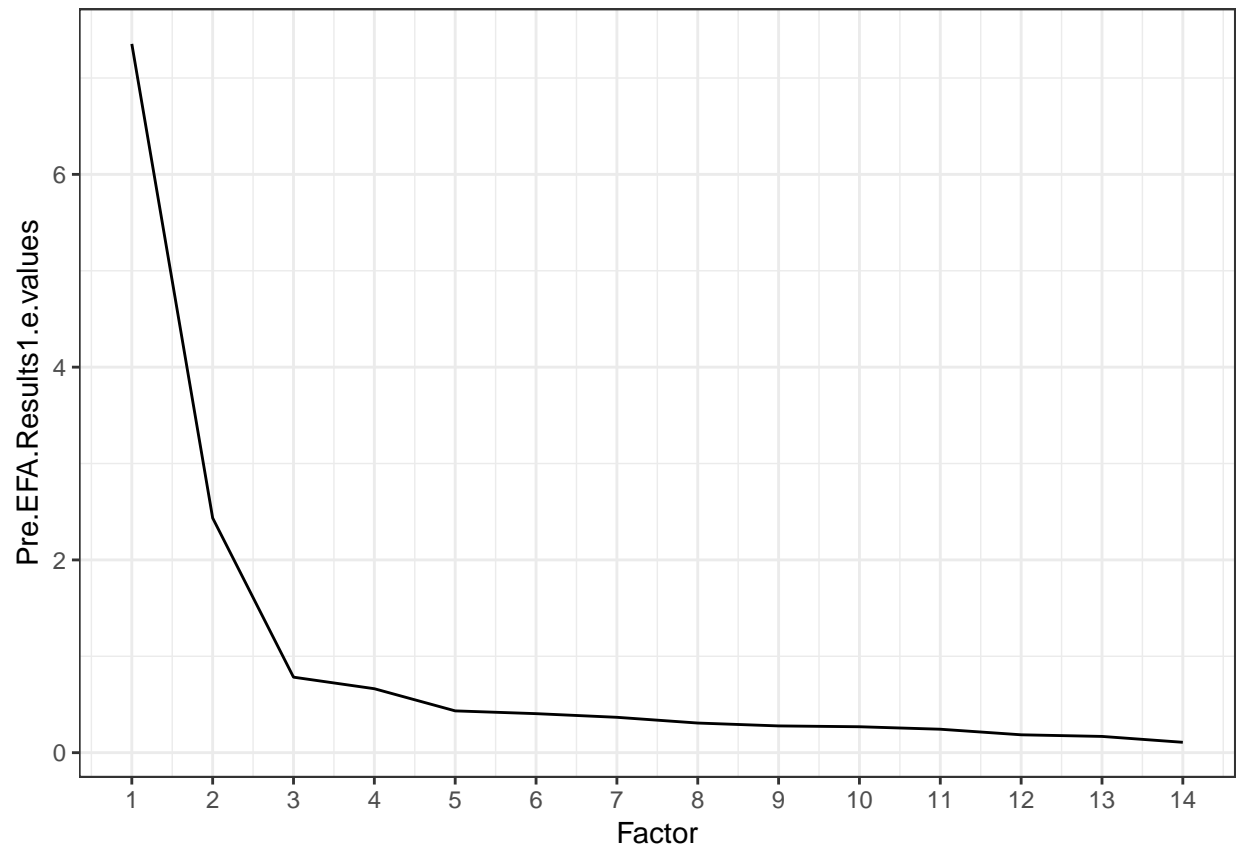
Value	Rel. Skills	Prtnr. Sel.	Past Rel. Beh.	Rel. Beh. Att.
[-1,0]	15	12	17	23
(0,1]	51	36	55	64
(1,2]	43	45	34	26
(2,3]	12	20	16	9
(3,4]	7	16	3	3
Valid Total	128	129	125	125
—	—	—	—	—
Missing	1	0	4	4
Total	129	129	129	129

2 Exploratory Factor Analysis Treating Data as Continuous (On Full Sample)

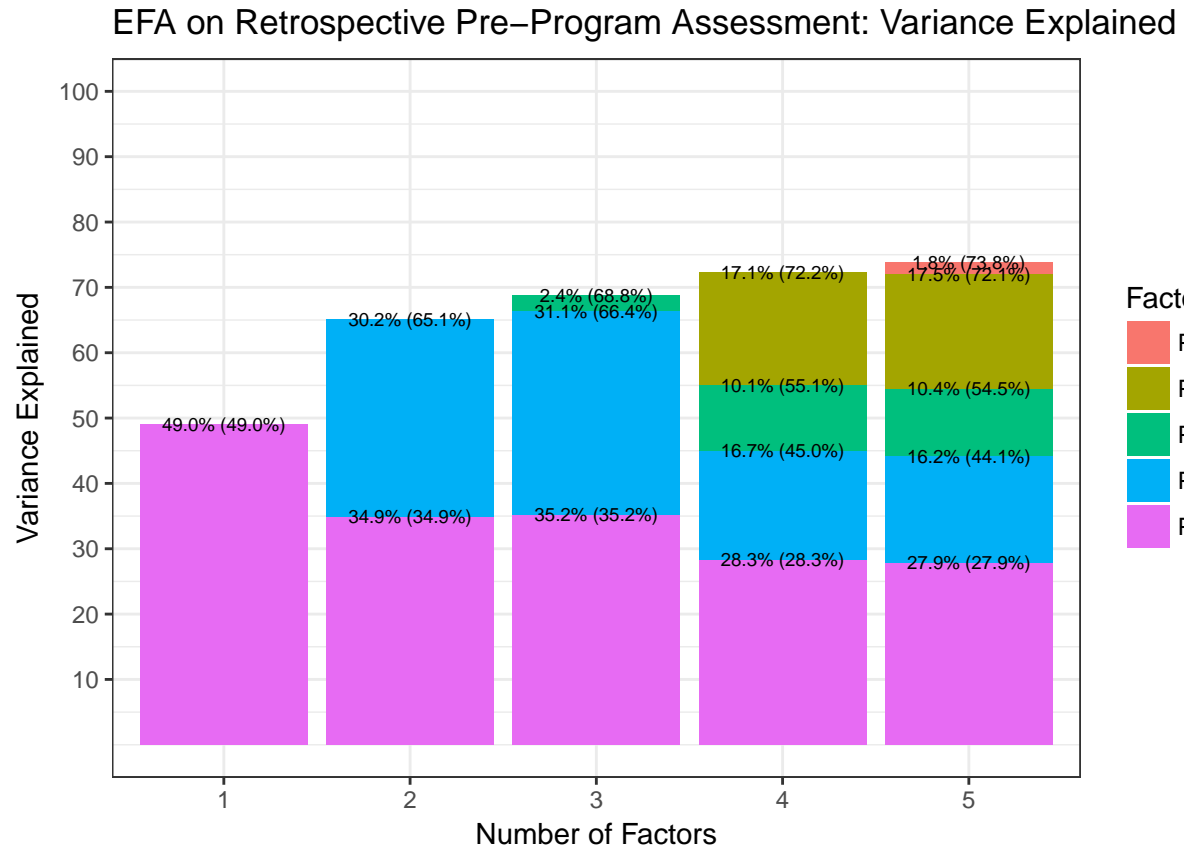
2.1 Retrospective-Pre

2.1.0.1 Determining Number of Factors

2.1.0.1.1 Screeplot

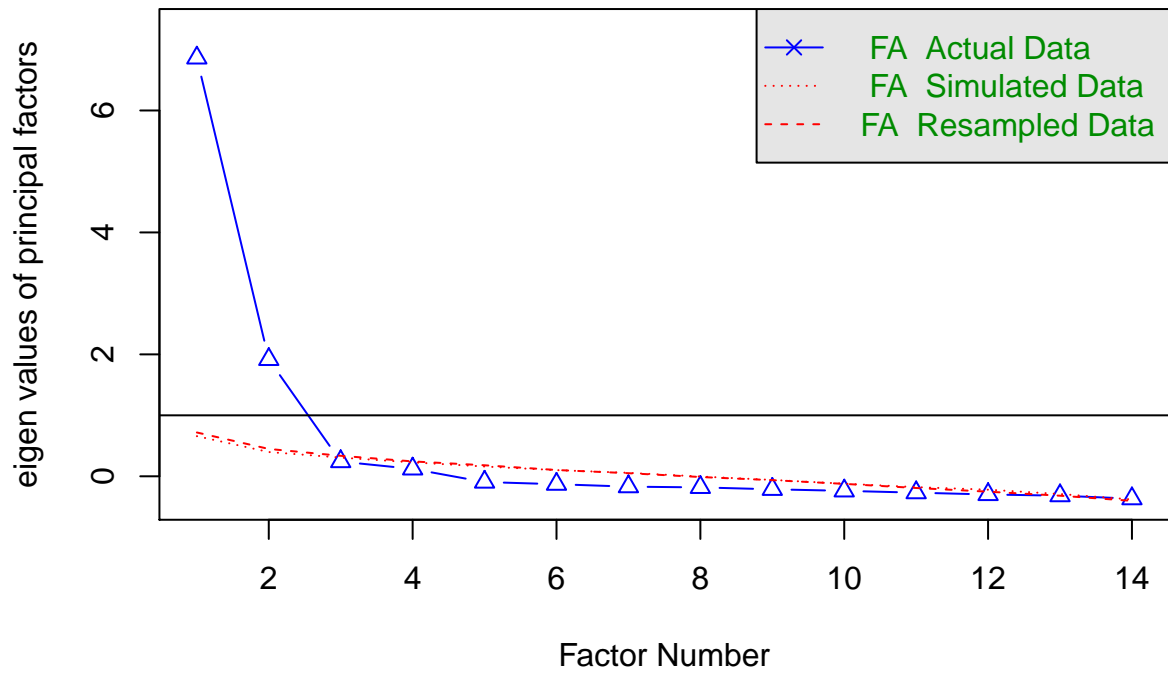


2.1.0.1.2 Proportion of Variance



2.1.0.1.3 Parallel Analysis

Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 2 and the number of components = NA

2.1.0.1.4 EFA Results

One Factor

Factor analysis with Call: `psych::fa(r = Pre_vars, nfactors = 1, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 1 factor is sufficient. The degrees of freedom for the model is 77 and the objective function was 4.35 The number of observations was 188 with Chi Square = 786.78 with $\text{prob} < 3.8\text{e-}118$

The root mean square of the residuals (RMSA) is 0.15 The df corrected root mean square of the residuals is 0.17

Tucker Lewis Index of factoring reliability = 0.574 RMSEA index = 0.226 and the 10 % confidence intervals are 0.208 0.236 BIC = 383.58

Two Factors

Factor analysis with Call: `psych::fa(r = Pre_vars, nfactors = 2, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 2 factors are sufficient. The degrees of freedom for the model is 64 and the objective function was 1.13 The number of observations was 188 with Chi Square = 203.81 with $\text{prob} < 1.7\text{e-}16$

The root mean square of the residuals (RMSA) is 0.04 The df corrected root mean square of the residuals is 0.05

Tucker Lewis Index of factoring reliability = 0.899 RMSEA index = 0.111 and the 10 % confidence intervals are 0.092 0.125 BIC = -131.32 With factor correlations of PA1 PA2 PA1 1.00 0.53 PA2 0.53 1.00

Three Factors

Factor analysis with Call: `psych::fa(r = Pre_vars, nfactors = 3, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 3 factors are sufficient. The degrees of freedom for the model is 52 and the objective function was 0.71 The number of observations was 188 with Chi Square = 127.36 with $\text{prob} < 2.9\text{e-}08$

The root mean square of the residuals (RMSA) is 0.03 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.933 RMSEA index = 0.091 and the 10 % confidence intervals are 0.069 0.108 BIC = -144.93 With factor correlations of PA1 PA2 PA3 PA1 1.00 0.56 -0.25 PA2 0.56 1.00 -0.30 PA3 -0.25 -0.30 1.00

Four Factors

Factor analysis with Call: `psych::fa(r = Pre_vars, nfactors = 4, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 4 factors are sufficient. The degrees of freedom for the model is 41 and the objective function was 0.35 The number of observations was 188 with Chi Square = 61.9 with $\text{prob} < 0.019$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.02

Tucker Lewis Index of factoring reliability = 0.976 RMSEA index = 0.056 and the 10 % confidence intervals are 0.022 0.078 BIC = -152.79 With factor correlations of PA1 PA4 PA2 PA3 PA1 1.00 0.44 0.47 0.64 PA4 0.44 1.00 0.76 0.45 PA2 0.47 0.76 1.00 0.42 PA3 0.64 0.45 0.42 1.00

Five Factors

Factor analysis with Call: `psych::fa(r = Pre_vars, nfactors = 5, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 5 factors are sufficient. The degrees of freedom for the model is 31 and the objective function was 0.21 The number of observations was 188 with Chi Square = 37.89 with $\text{prob} < 0.18$

The root mean square of the residuals (RMSA) is 0.01 The df corrected root mean square of the residuals is 0.02

Tucker Lewis Index of factoring reliability = 0.99 RMSEA index = 0.039 and the 10 % confidence intervals are 0 0.068 BIC = -124.44 With factor correlations of PA1 PA4 PA2 PA3 PA5 PA1 1.00 0.45 0.50 0.69 -0.17 PA4 0.45 1.00 0.71 0.44 0.14 PA2 0.50 0.71 1.00 0.41 -0.13 PA3 0.69 0.44 0.41 1.00 0.03 PA5 -0.17 0.14 -0.13 0.03 1.00

2.1.0.1.5 Comparing Loadings

One Factor

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results1

Table 26: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA1.1	PA1.2	com
Healthy_Rel_Before.n	0.75	0.56	0.44	1
Communicate_Before.n	0.66	0.44	0.56	1
ConflictManagement_Before.n	0.72	0.52	0.48	1
RightPartner_Before.n	0.79	0.62	0.38	1
LearnPartner_Before.n	0.80	0.64	0.36	1
PaceRelationship_Before.n	0.78	0.61	0.39	1
WarningSigns_Before.n	0.76	0.58	0.42	1
LearnedGrowingUp_Before.n	0.70	0.50	0.50	1
PastRelationships_Before.n	0.61	0.37	0.63	1
GetAlongParents_Before.n	0.67	0.45	0.55	1
FriendshipsAreLike_Before.n	0.70	0.49	0.51	1
Fights_Before.n	0.57	0.32	0.68	1
FeelingsHurt_Before.n	0.62	0.38	0.62	1
RightandWrong_Before.n	0.62	0.39	0.61	1
SS loadings	6.86			

Two Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results2

Table 27: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA2	h2	u2	com
Healthy_Rel_Before.n	0.78	0.05	0.66	0.34	1.01
Communicate_Before.n	0.80	-0.06	0.59	0.41	1.01
ConflictManagement_Before.n	0.73	0.08	0.60	0.40	1.02
RightPartner_Before.n	0.96	-0.07	0.85	0.15	1.01
LearnPartner_Before.n	0.91	-0.01	0.81	0.19	1.00
PaceRelationship_Before.n	0.84	0.04	0.74	0.26	1.00
WarningSigns_Before.n	0.80	0.04	0.69	0.31	1.01
LearnedGrowingUp_Before.n	0.04	0.80	0.68	0.32	1.00
PastRelationships_Before.n	-0.04	0.77	0.57	0.43	1.00
GetAlongParents_Before.n	-0.01	0.82	0.66	0.34	1.00
FriendshipsAreLike_Before.n	0.05	0.79	0.67	0.33	1.01
Fights_Before.n	0.04	0.63	0.43	0.57	1.01
FeelingsHurt_Before.n	-0.01	0.74	0.55	0.45	1.00
RightandWrong_Before.n	-0.07	0.83	0.63	0.37	1.01
SS loadings	4.89	4.22			
PA1	1.00	0.53			
PA2	0.53	1.00			

Three Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results3

Table 28: fa2latex						
A factor analysis table from the psych package in R						
Variable	PA1	PA2	PA3	h2	u2	com
Healthy_Rel_Before.n	0.76	0.06	-0.07	0.66	0.34	1.03
Communicate_Before.n	0.75	-0.05	-0.24	0.65	0.35	1.22
ConflictManagement_Before.n	0.67	0.09	-0.25	0.69	0.31	1.32
RightPartner_Before.n	0.96	-0.07	0.03	0.84	0.16	1.01
LearnPartner_Before.n	0.93	-0.01	0.11	0.82	0.18	1.03
PaceRelationship_Before.n	0.91	0.03	0.25	0.80	0.20	1.15
WarningSigns_Before.n	0.86	0.04	0.20	0.73	0.27	1.12
LearnedGrowingUp_Before.n	0.01	0.85	0.04	0.70	0.30	1.01
PastRelationships_Before.n	0.03	0.81	0.46	0.67	0.33	1.59
GetAlongParents_Before.n	0.00	0.85	0.21	0.65	0.35	1.13
FriendshipsAreLike_Before.n	0.10	0.83	0.41	0.74	0.26	1.50
Fights_Before.n	-0.01	0.67	-0.02	0.45	0.55	1.00
FeelingsHurt_Before.n	-0.05	0.79	0.00	0.58	0.42	1.01
RightandWrong_Before.n	-0.10	0.87	0.05	0.65	0.35	1.03
SS loadings	4.93	4.36	0.34			
PA1	1.00	0.56	-0.25			
PA2	0.56	1.00	-0.30			
PA3	-0.25	-0.30	1.00			

Four Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results4

Table 29: fa2latex							
A factor analysis table from the psych package in R							
Variable	PA1	PA4	PA2	PA3	h2	u2	com
Healthy_Rel_Before.n	0.49	-0.04	0.09	0.39	0.67	0.33	2.01
Communicate_Before.n	0.36	-0.06	-0.05	0.62	0.71	0.29	1.64
ConflictManagement_Before.n	0.26	0.05	-0.03	0.67	0.76	0.24	1.31
RightPartner_Before.n	0.88	0.09	-0.13	0.10	0.86	0.14	1.09
LearnPartner_Before.n	0.88	0.04	-0.01	0.04	0.84	0.16	1.01
PaceRelationship_Before.n	0.88	-0.07	0.15	-0.05	0.80	0.20	1.08
WarningSigns_Before.n	0.88	0.03	0.06	-0.09	0.75	0.25	1.03
LearnedGrowingUp_Before.n	0.00	0.62	0.22	0.08	0.70	0.30	1.28
PastRelationships_Before.n	0.07	0.09	0.77	-0.16	0.66	0.34	1.14
GetAlongParents_Before.n	-0.10	0.22	0.63	0.12	0.68	0.32	1.37
FriendshipsAreLike_Before.n	0.03	-0.06	0.95	-0.01	0.84	0.16	1.01
Fights_Before.n	0.13	0.92	-0.21	-0.11	0.61	0.39	1.18
FeelingsHurt_Before.n	-0.02	0.69	0.09	0.04	0.59	0.41	1.04
RightandWrong_Before.n	-0.09	0.59	0.26	0.06	0.64	0.36	1.46
SS loadings	3.96	2.4	2.34	1.41			
PA1	1.00	0.44	0.47	0.64			
PA4	0.44	1.00	0.76	0.45			
PA2	0.47	0.76	1.00	0.42			
PA3	0.64	0.45	0.42	1.00			

Five Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results5

Table 30: fa2latex								
A factor analysis table from the psych package in R								
Variable	PA1	PA4	PA2	PA3	PA5	h2	u2	com
Healthy_Rel_Before.n	0.43	-0.02	0.08	0.43	-0.03	0.68	0.32	2.08
Communicate_Before.n	0.31	-0.04	-0.07	0.65	-0.01	0.71	0.29	1.47
ConflictManagement_Before.n	0.22	0.06	-0.04	0.69	0.03	0.76	0.24	1.23
RightPartner_Before.n	0.94	0.05	-0.12	0.05	0.07	0.88	0.12	1.06
LearnPartner_Before.n	0.96	0.00	0.00	-0.02	0.09	0.86	0.14	1.02
PaceRelationship_Before.n	0.82	-0.06	0.16	-0.01	-0.10	0.81	0.19	1.11
WarningSigns_Before.n	0.84	0.04	0.06	-0.06	-0.07	0.75	0.25	1.04
LearnedGrowingUp_Before.n	-0.11	0.70	0.19	0.15	-0.11	0.74	0.26	1.35
PastRelationships_Before.n	-0.02	0.14	0.78	-0.10	-0.04	0.71	0.29	1.11
GetAlongParents_Before.n	0.03	0.13	0.70	0.03	0.44	0.81	0.19	1.78
FriendshipsAreLike_Before.n	0.04	0.02	0.87	-0.01	0.16	0.80	0.20	1.08
Fights_Before.n	0.11	0.91	-0.20	-0.10	-0.06	0.61	0.39	1.17
FeelingsHurt_Before.n	0.03	0.68	0.09	0.00	0.11	0.60	0.40	1.09
RightandWrong_Before.n	-0.06	0.59	0.26	0.04	0.11	0.63	0.37	1.50
SS loadings	3.91	2.46	2.27	1.46	0.25			
PA1	1.00	0.45	0.50	0.69	-0.17			
PA4	0.45	1.00	0.71	0.44	0.14			
PA2	0.50	0.71	1.00	0.41	-0.13			
PA3	0.69	0.44	0.41	1.00	0.03			
PA5	-0.17	0.14	-0.13	0.03	1.00			

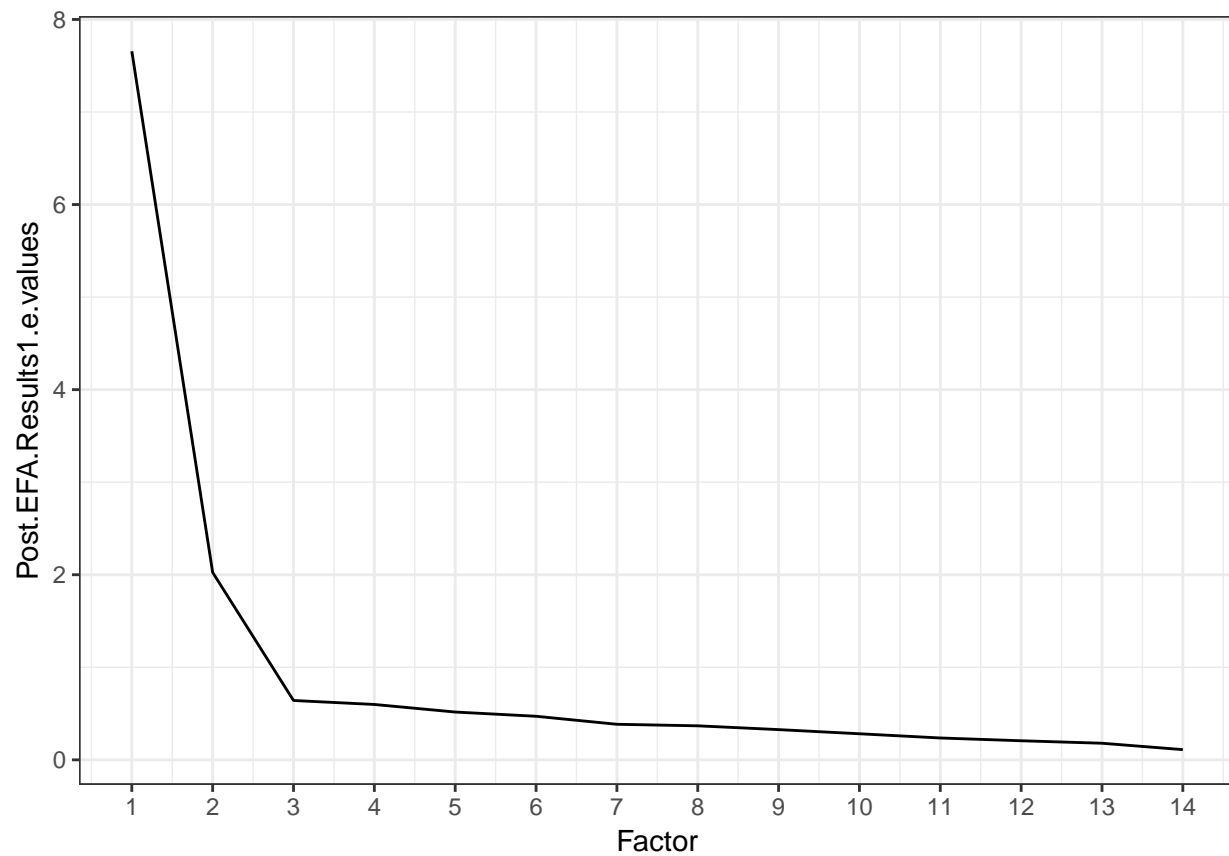
2.2 Post

maximum iteration exceeded

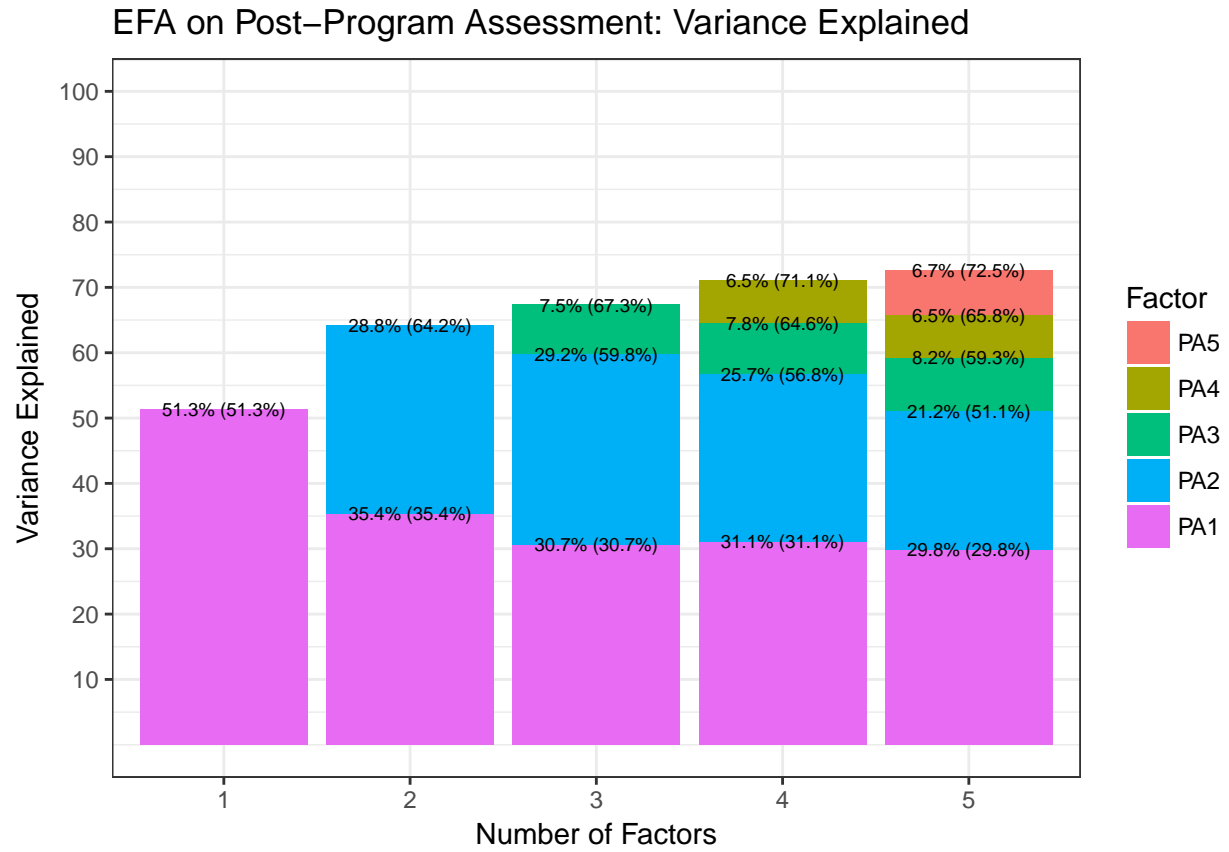
Warning in fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate =
rotate, : An ultra-Heywood case was detected. Examine the results carefully

2.2.0.1 Determining Number of Factors

2.2.0.1.1 Screeplot

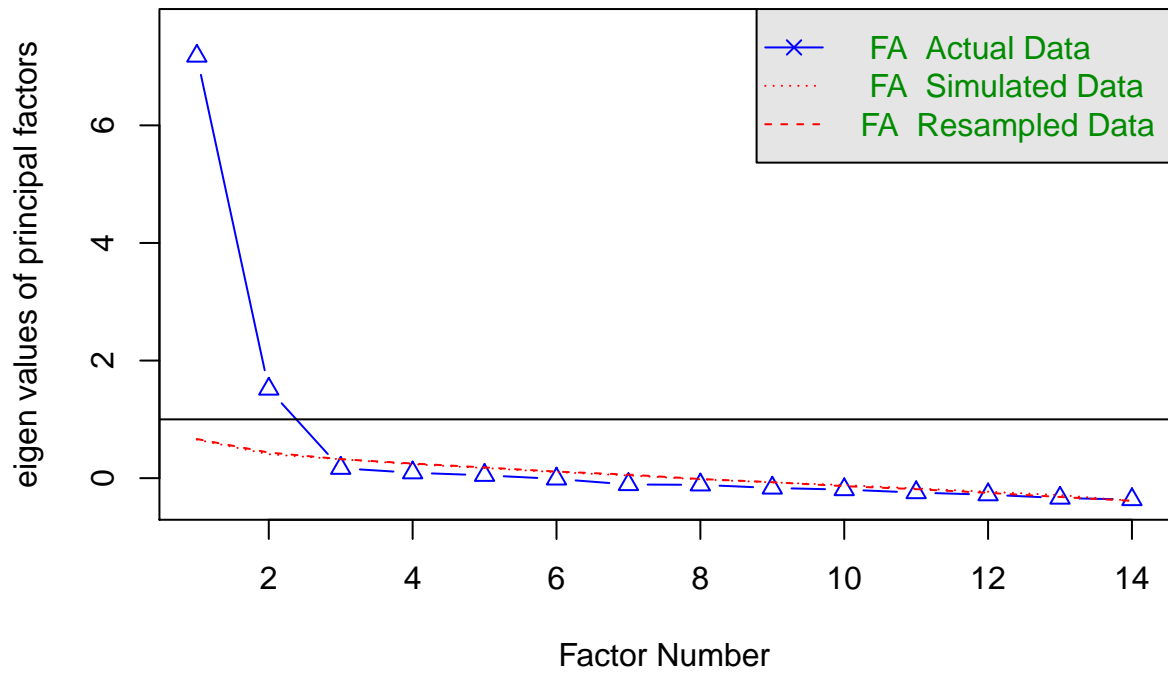


2.2.0.1.2 Proportion of Variance



2.2.0.1.3 Parallel Analysis

Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 2 and the number of components = NA

2.2.0.1.4 EFA Results

One Factor

Factor analysis with Call: `psych::fa(r = Post_vars, nfactors = 1, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 1 factor is sufficient. The degrees of freedom for the model is 77 and the objective function was 3.47 The number of observations was 188 with Chi Square = 628.12 with $\text{prob} < 2.4\text{e-}87$

The root mean square of the residuals (RMSA) is 0.12 The df corrected root mean square of the residuals is 0.14

Tucker Lewis Index of factoring reliability = 0.654 RMSEA index = 0.199 and the 10 % confidence intervals are 0.182 0.21 BIC = 224.91

Two Factors

Factor analysis with Call: `psych::fa(r = Post_vars, nfactors = 2, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 2 factors are sufficient. The degrees of freedom for the model is 64 and the objective function was 1.16 The number of observations was 188 with Chi Square = 208.83 with $\text{prob} < 3\text{e-}17$

The root mean square of the residuals (RMSA) is 0.04 The df corrected root mean square of the residuals is 0.05

Tucker Lewis Index of factoring reliability = 0.89 RMSEA index = 0.113 and the 10 % confidence intervals are 0.094 0.127 BIC = -126.3 With factor correlations of PA1 PA2 PA1 1.00 0.62 PA2 0.62 1.00

Three Factors

Factor analysis with Call: `psych::fa(r = Post_vars, nfactors = 3, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 3 factors are sufficient. The degrees of freedom for the model is 52 and the objective function was 0.82 The number of observations was 188 with Chi Square = 146.35 with $\text{prob} < 6.5\text{e-}11$

The root mean square of the residuals (RMSA) is 0.03 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.912 RMSEA index = 0.102 and the 10 % confidence intervals are 0.08 0.118 BIC = -125.94 With factor correlations of PA2 PA1 PA3 PA2 1.00 0.59 0.55 PA1 0.59 1.00 0.53 PA3 0.55 0.53 1.00

Four Factors

Factor analysis with Call: `psych::fa(r = Post_vars, nfactors = 4, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 4 factors are sufficient. The degrees of freedom for the model is 41 and the objective function was 0.59 The number of observations was 188 with Chi Square = 104.7 with $\text{prob} < 1.8\text{e-}07$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.924 RMSEA index = 0.095 and the 10 % confidence intervals are 0.07 0.113 BIC = -109.99 With factor correlations of PA1 PA2 PA3 PA4 PA1 1.00 0.56 0.58 0.45 PA2 0.56 1.00 0.65 0.44 PA3 0.58 0.65 1.00 0.40 PA4 0.45 0.44 0.40 1.00

Five Factors

Factor analysis with Call: `psych::fa(r = Post_vars, nfactors = 5, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 5 factors are sufficient. The degrees of freedom for the model is 31 and the objective function was 0.42 The number of observations was 188 with Chi Square = 74.99 with $\text{prob} < 1.6\text{e-}05$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.93 RMSEA index = 0.091 and the 10 % confidence intervals are 0.062 0.112 BIC = -87.34 With factor correlations of PA1 PA2 PA3 PA4 PA5 PA1 1.00 0.46 0.42 0.50 0.47 PA2 0.46 1.00 0.56 0.57 0.64 PA3 0.42 0.56 1.00 0.39 0.54 PA4 0.50 0.57 0.39 1.00 0.48 PA5 0.47 0.64 0.54 0.48 1.00

2.2.0.1.5 Comparing Loadings

One Factor

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results1

Table 31: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA1.1	PA1.2	com
Healthy_Rel.n	0.70	0.49	0.51	1
Communicate.n	0.75	0.57	0.43	1
ConflictManagement.n	0.72	0.52	0.48	1
RightPartner.n	0.67	0.45	0.55	1
LearnPartner.n	0.81	0.65	0.35	1
PaceRelationship.n	0.75	0.56	0.44	1
WarningSigns.n	0.79	0.62	0.38	1
LearnedGrowingUp.n	0.70	0.49	0.51	1
PastRelationships.n	0.67	0.45	0.55	1
GetAlongParents.n	0.71	0.51	0.49	1
FriendshipsAreLike.n	0.65	0.43	0.57	1
Fights.n	0.61	0.37	0.63	1
FeelingsHurt.n	0.73	0.53	0.47	1
RightandWrong.n	0.73	0.54	0.46	1
SS loadings	7.18			

Two Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results2

Table 32: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA2	h2	u2	com
Healthy_Rel.n	0.76	0.00	0.57	0.43	1.00
Communicate.n	0.85	-0.04	0.69	0.31	1.00
ConflictManagement.n	0.81	-0.03	0.63	0.37	1.00
RightPartner.n	0.88	-0.16	0.63	0.37	1.06
LearnPartner.n	0.84	0.04	0.74	0.26	1.00
PaceRelationship.n	0.75	0.06	0.62	0.38	1.01
WarningSigns.n	0.87	-0.02	0.74	0.26	1.00
LearnedGrowingUp.n	0.11	0.70	0.59	0.41	1.05
PastRelationships.n	-0.10	0.90	0.71	0.29	1.03
GetAlongParents.n	0.22	0.58	0.55	0.45	1.29
FriendshipsAreLike.n	-0.18	0.97	0.76	0.24	1.07
Fights.n	-0.06	0.77	0.54	0.46	1.01
FeelingsHurt.n	0.28	0.53	0.55	0.45	1.52
RightandWrong.n	0.10	0.74	0.66	0.34	1.04
SS loadings	4.95	4.04			
PA1	1.00	0.62			
PA2	0.62	1.00			

Three Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results3

Table 33: fa2latex						
A factor analysis table from the psych package in R						
Variable	PA2	PA1	PA3	h2	u2	com
Healthy_Rel.n	0.05	0.75	-0.02	0.59	0.41	1.01
Communicate.n	0.01	0.82	0.02	0.70	0.30	1.00
ConflictManagement.n	0.04	0.84	-0.09	0.68	0.32	1.02
RightPartner.n	-0.10	0.89	-0.03	0.67	0.33	1.03
LearnPartner.n	0.02	0.67	0.27	0.74	0.26	1.32
PaceRelationship.n	0.06	0.61	0.21	0.62	0.38	1.25
WarningSigns.n	-0.18	0.54	0.71	0.98	0.02	2.02
LearnedGrowingUp.n	0.75	0.17	-0.15	0.62	0.38	1.19
PastRelationships.n	0.92	-0.06	-0.09	0.71	0.29	1.03
GetAlongParents.n	0.57	0.16	0.10	0.55	0.45	1.21
FriendshipsAreLike.n	1.00	-0.14	-0.10	0.77	0.23	1.06
Fights.n	0.75	-0.11	0.08	0.55	0.45	1.06
FeelingsHurt.n	0.48	0.09	0.32	0.60	0.40	1.84
RightandWrong.n	0.75	0.09	0.00	0.65	0.35	1.03
SS loadings	4.08	4.29	1.05			
PA2	1.00	0.59	0.55			
PA1	0.59	1.00	0.53			
PA3	0.55	0.53	1.00			

Four Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results4

Table 34: fa2latex							
A factor analysis table from the psych package in R							
Variable	PA1	PA2	PA3	PA4	h2	u2	com
Healthy_Rel.n	0.75	0.03	0.01	-0.01	0.59	0.41	1.00
Communicate.n	0.87	0.09	-0.15	0.03	0.73	0.27	1.08
ConflictManagement.n	0.84	0.01	0.02	-0.08	0.67	0.33	1.02
RightPartner.n	0.87	-0.17	0.10	-0.04	0.67	0.33	1.10
LearnPartner.n	0.72	0.09	-0.11	0.26	0.76	0.24	1.35
PaceRelationship.n	0.62	0.02	0.09	0.18	0.62	0.38	1.21
WarningSigns.n	0.59	-0.14	0.00	0.68	1.01	-0.01	2.04
LearnedGrowingUp.n	0.17	0.64	0.14	-0.15	0.61	0.39	1.38
PastRelationships.n	-0.01	0.98	-0.13	-0.06	0.76	0.24	1.04
GetAlongParents.n	-0.05	0.12	0.92	0.00	0.95	0.05	1.04
FriendshipsAreLike.n	-0.12	0.91	0.08	-0.08	0.76	0.24	1.07
Fights.n	-0.06	0.81	-0.11	0.11	0.59	0.41	1.08
FeelingsHurt.n	0.10	0.36	0.23	0.26	0.59	0.41	2.75
RightandWrong.n	0.11	0.69	0.07	0.00	0.65	0.35	1.07
SS loadings	4.35	3.59	1.09	0.92			
PA1	1.00	0.56	0.58	0.45			
PA2	0.56	1.00	0.65	0.44			
PA3	0.58	0.65	1.00	0.40			
PA4	0.45	0.44	0.40	1.00			

Five Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results5

Table 35: fa2latex								
A factor analysis table from the psych package in R								
Variable	PA1	PA2	PA3	PA4	PA5	h2	u2	com
Healthy_Rel.n	0.73	0.12	-0.04	0.05	-0.04	0.61	0.39	1.07
Communicate.n	0.79	-0.05	0.05	-0.21	0.32	0.78	0.22	1.50
ConflictManagement.n	0.74	0.00	-0.05	0.02	0.15	0.66	0.34	1.09
RightPartner.n	0.84	-0.04	-0.08	0.14	-0.06	0.71	0.29	1.09
LearnPartner.n	0.70	0.02	0.32	-0.13	0.08	0.78	0.22	1.51
PaceRelationship.n	0.62	0.04	0.19	0.11	-0.04	0.62	0.38	1.27
WarningSigns.n	0.70	-0.05	0.64	0.03	-0.29	0.95	0.05	2.35
LearnedGrowingUp.n	0.04	0.32	-0.12	0.11	0.59	0.73	0.27	1.74
PastRelationships.n	0.02	0.93	-0.05	-0.09	0.03	0.78	0.22	1.03
GetAlongParents.n	-0.01	0.13	0.11	0.73	0.08	0.83	0.17	1.14
FriendshipsAreLike.n	-0.09	0.87	-0.07	0.12	0.03	0.78	0.22	1.08
Fights.n	-0.01	0.75	0.15	-0.10	-0.03	0.60	0.40	1.12
FeelingsHurt.n	0.03	0.07	0.47	0.21	0.26	0.70	0.30	2.08
RightandWrong.n	0.10	0.57	0.04	0.09	0.14	0.64	0.36	1.26
SS loadings	4.18	2.97	1.15	0.91	0.94			
PA1	1.00	0.46	0.42	0.50	0.47			
PA2	0.46	1.00	0.56	0.57	0.64			
PA3	0.42	0.56	1.00	0.39	0.54			
PA4	0.50	0.57	0.39	1.00	0.48			
PA5	0.47	0.64	0.54	0.48	1.00			

2.3 Change

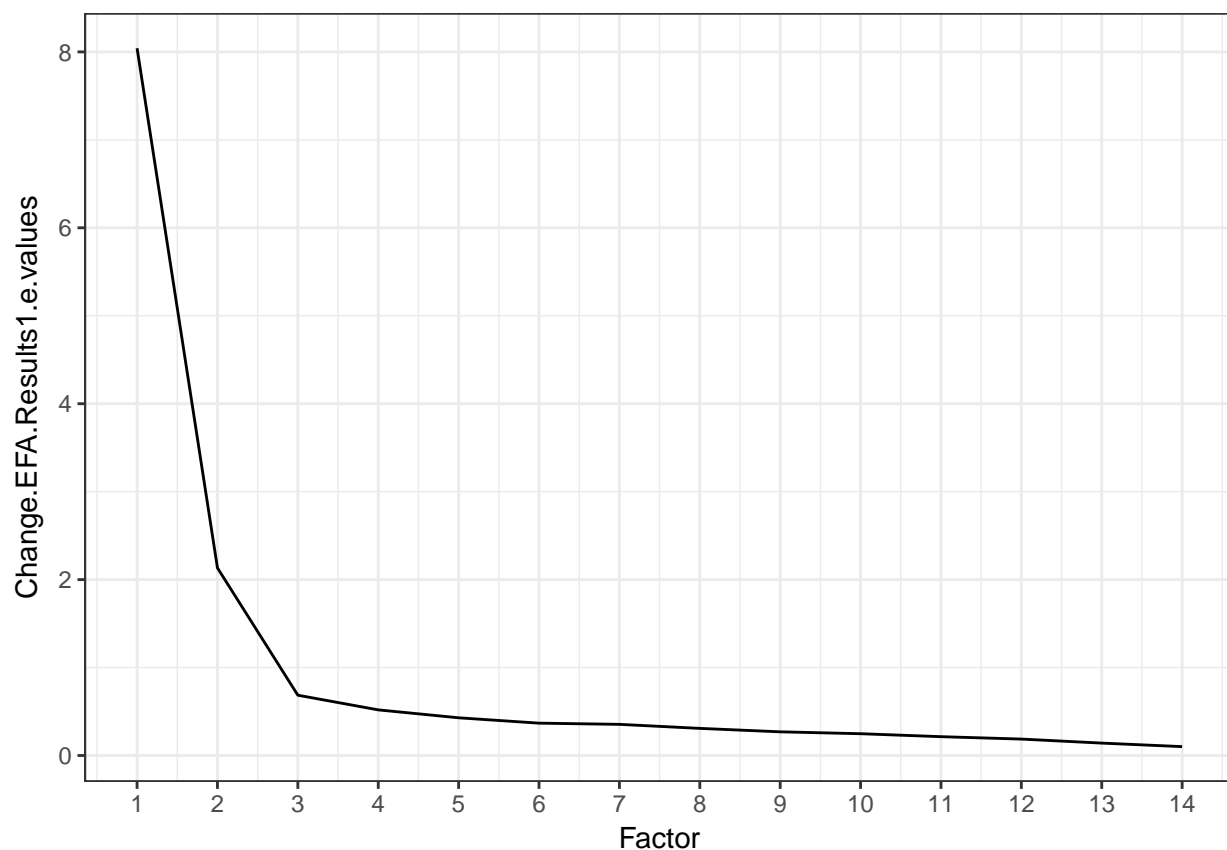
Warning in `fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : A loading greater than abs(1) was detected. Examine the loadings carefully.`

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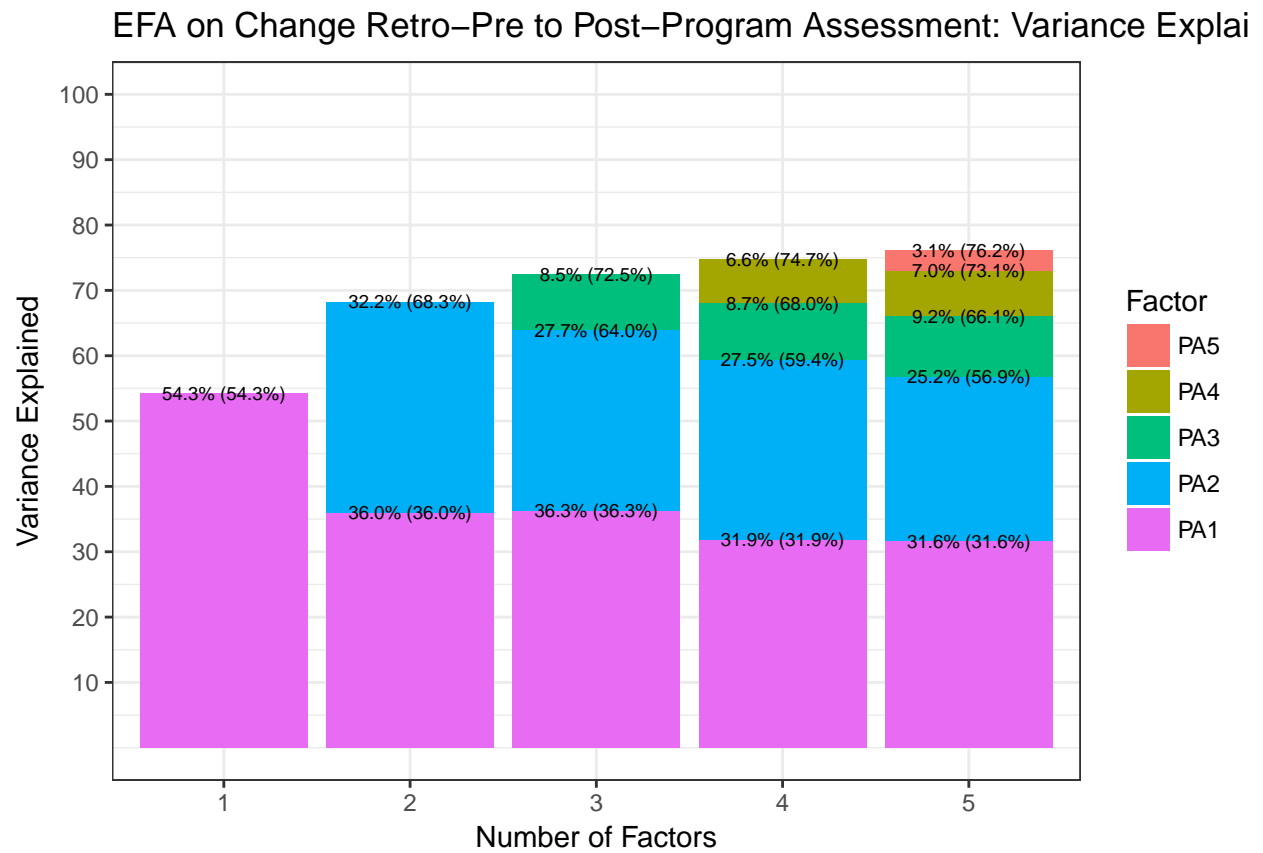
Warning in `fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : A loading greater than abs(1) was detected. Examine the loadings carefully.`

2.3.0.1 Determining Number of Factors

2.3.0.1.1 Screeplot

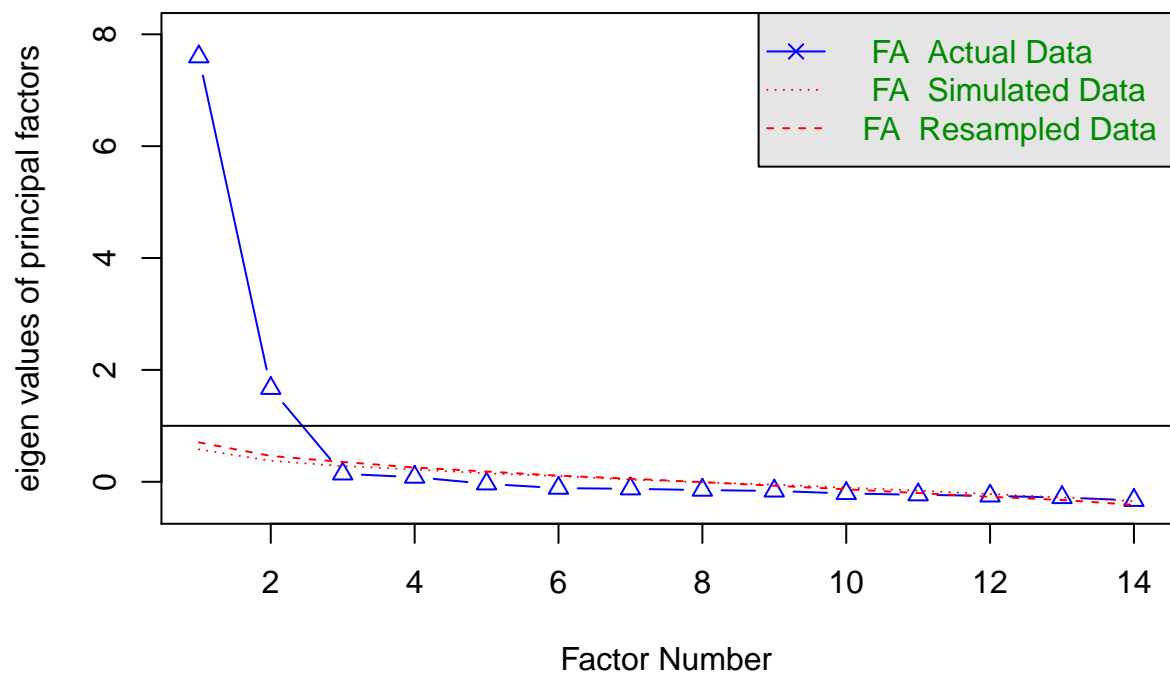


2.3.0.1.2 Proportion of Variance



2.3.0.1.3 Parallel Analysis

Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 2 and the number of components = NA

2.3.0.1.4 EFA Results

One Factor

Factor analysis with Call: `psych::fa(r = Change_vars, nfactors = 1, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 1 factor is sufficient. The degrees of freedom for the model is 77 and the objective function was 4.09 The number of observations was 188 with Chi Square = 738.85 with $\text{prob} < 9.2\text{e-}109$

The root mean square of the residuals (RMSA) is 0.13 The df corrected root mean square of the residuals is 0.15

Tucker Lewis Index of factoring reliability = 0.637 RMSEA index = 0.218 and the 10 % confidence intervals are 0.2 0.229 BIC = 335.64

Two Factors

Factor analysis with Call: `psych::fa(r = Change_vars, nfactors = 2, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 2 factors are sufficient. The degrees of freedom for the model is 64 and the objective function was 0.96 The number of observations was 188 with Chi Square = 172.35 with $\text{prob} < 7\text{e-}12$

The root mean square of the residuals (RMSA) is 0.03 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.928 RMSEA index = 0.098 and the 10 % confidence intervals are 0.078 0.112 BIC = -162.78 With factor correlations of PA1 PA2 PA1 1.0 0.6 PA2 0.6 1.0

Three Factors

Factor analysis with Call: `psych::fa(r = Change_vars, nfactors = 3, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 3 factors are sufficient. The degrees of freedom for the model is 52 and the objective function was 0.59 The number of observations was 188 with Chi Square = 105.96 with $\text{prob} < 1.5\text{e-}05$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.956 RMSEA index = 0.077 and the 10 % confidence intervals are 0.054 0.095 BIC = -166.34 With factor correlations of PA1 PA2 PA3 PA1 1.00 0.62 0.41 PA2 0.62 1.00 0.68 PA3 0.41 0.68 1.00

Four Factors

Factor analysis with Call: `psych::fa(r = Change_vars, nfactors = 4, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 4 factors are sufficient. The degrees of freedom for the model is 41 and the objective function was 0.36 The number of observations was 188 with Chi Square = 63.61 with $\text{prob} < 0.013$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.02

Tucker Lewis Index of factoring reliability = 0.976 RMSEA index = 0.058 and the 10 % confidence intervals are 0.025 0.079 BIC = -151.09 With factor correlations of PA1 PA2 PA3 PA4 PA1 1.00 0.59 0.43 0.65 PA2 0.59 1.00 0.70 0.51 PA3 0.43 0.70 1.00 0.36 PA4 0.65 0.51 0.36 1.00

Five Factors

Factor analysis with Call: `psych::fa(r = Change_vars, nfactors = 5, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 5 factors are sufficient. The degrees of freedom for the model is 31 and the objective function was 0.19 The number of observations was 188 with Chi Square = 34.04 with $\text{prob} < 0.32$

The root mean square of the residuals (RMSA) is 0.01 The df corrected root mean square of the residuals is 0.02

Tucker Lewis Index of factoring reliability = 0.996 RMSEA index = 0.029 and the 10 % confidence intervals are 0 0.061 BIC = -128.29 With factor correlations of PA1 PA2 PA3 PA4 PA5 PA1 1.00 0.56 0.46 0.66 0.42 PA2 0.56 1.00 0.73 0.49 0.38 PA3 0.46 0.73 1.00 0.40 0.33 PA4 0.66 0.49 0.40 1.00 0.43 PA5 0.42 0.38 0.33 0.43 1.00

2.3.0.1.5 Comparing Loadings

One Factor

% Called in the psych package psych::fa2latex % Called in the psych package Change.EFA.Results1

Table 36: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA1.1	PA1.2	com
Healthy_Rel_Change	0.74	0.55	0.45	1
Communicate_Change	0.71	0.50	0.50	1
ConflictManagement_Change	0.75	0.56	0.44	1
RightPartner_Change	0.80	0.63	0.37	1
LearnPartner_Change	0.83	0.69	0.31	1
PaceRelationship_Change	0.79	0.62	0.38	1
WarningSigns_Change	0.79	0.63	0.37	1
LearnedGrowingUp_Change	0.70	0.50	0.50	1
PastRelationships_Change	0.71	0.50	0.50	1
GetAlongParents_Change	0.74	0.55	0.45	1
FriendshipsAreLike_Change	0.77	0.60	0.40	1
Fights_Change	0.56	0.32	0.68	1
FeelingsHurt_Change	0.69	0.47	0.53	1
RightandWrong_Change	0.69	0.48	0.52	1
SS loadings	7.6			

Two Factors

% Called in the psych package psych::fa2latex % Called in the psych package Change.EFA.Results2

Table 37: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA2	h2	u2	com
Healthy_Rel_Change	0.78	0.04	0.65	0.35	1.00
Communicate_Change	0.78	0.00	0.61	0.39	1.00
ConflictManagement_Change	0.74	0.08	0.63	0.37	1.03
RightPartner_Change	0.95	-0.06	0.83	0.17	1.01
LearnPartner_Change	0.89	0.03	0.83	0.17	1.00
PaceRelationship_Change	0.88	0.00	0.77	0.23	1.00
WarningSigns_Change	0.84	0.03	0.75	0.25	1.00
LearnedGrowingUp_Change	0.05	0.76	0.62	0.38	1.01
PastRelationships_Change	0.01	0.80	0.66	0.34	1.00
GetAlongParents_Change	0.00	0.85	0.73	0.27	1.00
FriendshipsAreLike_Change	0.07	0.82	0.74	0.26	1.01
Fights_Change	-0.07	0.72	0.46	0.54	1.02
FeelingsHurt_Change	0.04	0.74	0.59	0.41	1.01
RightandWrong_Change	-0.06	0.86	0.69	0.31	1.01
SS loadings	5.04	4.52			
PA1	1.00	0.60			
PA2	0.60	1.00			

Three Factors

% Called in the psych package psych::fa2latex % Called in the psych package Change.EFA.Results3

Table 38: fa2latex						
A factor analysis table from the psych package in R						
Variable	PA1	PA2	PA3	h2	u2	com
Healthy_Rel_Change	0.78	0.10	-0.08	0.65	0.35	1.06
Communicate_Change	0.78	0.05	-0.07	0.61	0.39	1.02
ConflictManagement_Change	0.75	0.04	0.04	0.63	0.37	1.01
RightPartner_Change	0.97	-0.13	0.06	0.84	0.16	1.04
LearnPartner_Change	0.89	0.05	-0.04	0.83	0.17	1.01
PaceRelationship_Change	0.88	0.05	-0.08	0.77	0.23	1.02
WarningSigns_Change	0.87	-0.09	0.12	0.76	0.24	1.06
LearnedGrowingUp_Change	0.07	0.55	0.25	0.61	0.39	1.43
PastRelationships_Change	0.00	0.81	0.01	0.66	0.34	1.00
GetAlongParents_Change	-0.04	0.97	-0.10	0.78	0.22	1.02
FriendshipsAreLike_Change	0.01	1.02	-0.18	0.84	0.16	1.07
Fights_Change	-0.02	0.01	0.94	0.88	0.12	1.00
FeelingsHurt_Change	0.08	0.45	0.34	0.61	0.39	1.93
RightandWrong_Change	-0.05	0.78	0.10	0.68	0.32	1.04
SS loadings	5.08	3.87	1.19			
PA1	1.00	0.62	0.41			
PA2	0.62	1.00	0.68			
PA3	0.41	0.68	1.00			

Four Factors

% Called in the psych package psych::fa2latex % Called in the psych package Change.EFA.Results4

Table 39: fa2latex							
A factor analysis table from the psych package in R							
Variable	PA1	PA2	PA3	PA4	h2	u2	com
Healthy_Rel_Change	0.59	0.08	-0.07	0.27	0.66	0.34	1.49
Communicate_Change	0.38	-0.03	-0.05	0.62	0.78	0.22	1.68
ConflictManagement_Change	0.47	-0.01	0.07	0.41	0.68	0.32	2.01
RightPartner_Change	1.00	-0.10	0.05	-0.05	0.87	0.13	1.03
LearnPartner_Change	0.93	0.09	-0.06	-0.05	0.86	0.14	1.03
PaceRelationship_Change	0.89	0.09	-0.10	-0.02	0.79	0.21	1.05
WarningSigns_Change	0.87	-0.06	0.12	-0.02	0.77	0.23	1.05
LearnedGrowingUp_Change	-0.02	0.52	0.27	0.12	0.62	0.38	1.63
PastRelationships_Change	0.02	0.82	0.00	-0.03	0.67	0.33	1.00
GetAlongParents_Change	-0.03	0.96	-0.10	0.00	0.78	0.22	1.02
FriendshipsAreLike_Change	0.03	1.02	-0.19	-0.01	0.84	0.16	1.07
Fights_Change	-0.03	0.01	0.94	-0.03	0.86	0.14	1.00
FeelingsHurt_Change	0.09	0.45	0.36	-0.03	0.61	0.39	2.01
RightandWrong_Change	-0.02	0.78	0.10	-0.05	0.68	0.32	1.05
SS loadings	4.46	3.85	1.21	0.93			
PA1	1.00	0.59	0.43	0.65			
PA2	0.59	1.00	0.70	0.51			
PA3	0.43	0.70	1.00	0.36			
PA4	0.65	0.51	0.36	1.00			

Five Factors

% Called in the psych package psych::fa2latex % Called in the psych package Change.EFA.Results5

Table 40: fa2latex								
A factor analysis table from the psych package in R								
Variable	PA1	PA2	PA3	PA4	PA5	h2	u2	com
Healthy_Rel_Change	0.55	0.02	-0.06	0.27	0.15	0.68	0.32	1.64
Communicate_Change	0.37	-0.01	-0.06	0.65	-0.05	0.78	0.22	1.62
ConflictManagement_Change	0.47	0.01	0.06	0.43	-0.05	0.68	0.32	2.05
RightPartner_Change	1.03	-0.03	0.04	-0.04	-0.17	0.91	0.09	1.06
LearnPartner_Change	0.92	0.12	-0.06	-0.03	-0.04	0.85	0.15	1.05
PaceRelationship_Change	0.88	0.01	-0.09	-0.07	0.23	0.84	0.16	1.17
WarningSigns_Change	0.85	-0.07	0.13	0.00	0.01	0.77	0.23	1.06
LearnedGrowingUp_Change	-0.03	0.43	0.32	0.12	0.12	0.63	0.37	2.25
PastRelationships_Change	-0.02	0.69	0.03	-0.09	0.38	0.75	0.25	1.62
GetAlongParents_Change	-0.01	0.99	-0.13	0.03	-0.03	0.81	0.19	1.04
FriendshipsAreLike_Change	0.05	0.99	-0.19	0.01	0.05	0.84	0.16	1.09
Fights_Change	-0.03	-0.02	0.95	-0.04	0.00	0.82	0.18	1.01
FeelingsHurt_Change	0.10	0.43	0.39	-0.01	-0.08	0.63	0.37	2.18
RightandWrong_Change	-0.02	0.69	0.14	-0.05	0.13	0.67	0.33	1.17
SS loadings	4.43	3.53	1.29	0.98	0.43			
PA1	1.00	0.56	0.46	0.66	0.42			
PA2	0.56	1.00	0.73	0.49	0.38			
PA3	0.46	0.73	1.00	0.40	0.33			
PA4	0.66	0.49	0.40	1.00	0.43			
PA5	0.42	0.38	0.33	0.43	1.00			

3 Confirmatory Factor Analysis (On Analytic Sample)

3.1 Retrospective Pre

3.1.1 Model Fit

lavaan (0.6-1) converged normally after 44 iterations

	Used	Total
Number of observations	115	134
Estimator	ML	Robust
Model Fit Test Statistic	110.604	88.993
Degrees of freedom	71	71
P-value (Chi-square)	0.002	0.073
Scaling correction factor		1.243
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1184.039	868.766
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.964	0.977
Tucker-Lewis Index (TLI)	0.954	0.970
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1770.777	-1770.777
Loglikelihood unrestricted model (H1)	-1715.475	-1715.475
Number of free parameters	34	34
Akaike (AIC)	3609.554	3609.554
Bayesian (BIC)	3702.882	3702.882
Sample-size adjusted Bayesian (BIC)	3595.414	3595.414

Root Mean Square Error of Approximation:

RMSEA	0.070	0.047
90 Percent Confidence Interval	0.043 0.094	0.000 0.072
P-value RMSEA <= 0.05	0.104	0.553

Robust RMSEA	NA	
90 Percent Confidence Interval	0.000	NA

Standardized Root Mean Square Residual:

SRMR	0.055	0.055
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Parameter Estimates:

Information	Observed
Observed information based on	Hessian
Standard Errors	Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)
Healthy_Rel_Skills_Before =~				
Hlthy_Rl_Bfr.n	1.000			
Communct_Bfr.n	0.777	0.129	6.043	0.000
CnflctMngmn_B.	0.936	0.090	10.354	0.000
Partner_Selection_Before =~				
RghtPrtnr_Bfr.	1.000			
LrnPrtnr_Bfr.n	1.085	0.069	15.775	0.000
PcRltnshp_Bfr.	1.002	0.097	10.285	0.000
WrngSgns_Bfr.	0.962	0.100	9.581	0.000
Past_Rel_Behav_Before =~				
LrndGrwngUp_B.	1.000			
PstRltnshps_B.	0.904	0.103	8.760	0.000
GtAlngPrnts_B.	1.087	0.112	9.692	0.000
FrndshpsArL_B.	1.134	0.102	11.104	0.000
Rel_Behav_Attit_Before =~				
Fights_Befor.n	0.863	0.097	8.902	0.000
FlngsHrt_Bfr.n	1.000			
RghtndWrng_Bf.	0.797	0.099	8.083	0.000
Std.lv	Std.all			
0.850	0.856			
0.661	0.740			
0.796	0.823			
0.871	0.912			
0.945	0.914			
0.873	0.835			
0.838	0.808			
0.826	0.819			
0.746	0.718			
0.898	0.806			

0.936	0.838
0.724	0.664
0.838	0.818
0.668	0.730

Covariances:

	Estimate	Std.Err	z-value	P(> z)
Healthy_Rel_Skills_Before ~~				
Prtnr_Slctn_Bf	0.633	0.103	6.143	0.000
Pst_Rl_Bhv_Bfr	0.382	0.100	3.818	0.000
Rl_Bhv_Attn_Bf	0.431	0.112	3.853	0.000
Partner_Selection_Before ~~				
Pst_Rl_Bhv_Bfr	0.418	0.086	4.839	0.000
Rl_Bhv_Attn_Bf	0.406	0.095	4.295	0.000
Past_Rel_Behav_Before ~~				
Rl_Bhv_Attn_Bf	0.614	0.107	5.766	0.000
Std.lv Std.all				

0.855	0.855
0.545	0.545
0.605	0.605
0.582	0.582
0.557	0.557
0.887	0.887

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.n	0.264	0.061	4.310	0.000	0.264	0.267
.Communct_Bfr.n	0.361	0.113	3.198	0.001	0.361	0.453
.CnflctMngmn_B.	0.301	0.064	4.742	0.000	0.301	0.322
.RghtPrtnr_Bfr.	0.154	0.035	4.383	0.000	0.154	0.169
.LrnPrtnr_Bfr.n	0.176	0.059	2.990	0.003	0.176	0.165
.PcRltnshp_Bfr.	0.331	0.083	4.000	0.000	0.331	0.303
.WrnngSgns_Bfr.	0.373	0.085	4.415	0.000	0.373	0.347
.LrndGrwngUp_B.	0.333	0.071	4.715	0.000	0.333	0.329
.PstRltnshps_B.	0.522	0.099	5.279	0.000	0.522	0.484
.GtAlngPrnts_B.	0.433	0.082	5.305	0.000	0.433	0.350
.FrndshpsArL_B.	0.370	0.116	3.187	0.001	0.370	0.297
.Fights_Befor.n	0.665	0.130	5.130	0.000	0.665	0.560
.FlngsHrt_Bfr.n	0.347	0.068	5.074	0.000	0.347	0.331
.RghtndWrng_Bf.	0.390	0.082	4.740	0.000	0.390	0.467
Hlthy_Rl_Skl_B	0.723	0.130	5.570	0.000	1.000	1.000
Prtnr_Slctn_Bf	0.759	0.105	7.258	0.000	1.000	1.000
Pst_Rl_Bhv_Bfr	0.682	0.127	5.347	0.000	1.000	1.000
Rl_Bhv_Attn_Bf	0.703	0.129	5.453	0.000	1.000	1.000

3.1.2 Modification Indices

	lhs	op	rhs	mi
1	RightPartner_Before.n	~~	LearnPartner_Before.n	14.77978
2	Rel_Behav_Attit_Before	=~	LearnedGrowingUp_Before.n	12.94775
3	PaceRelationship_Before.n	~~	WarningSigns_Before.n	11.67927

	epc	sepc.lv	sepc.all	sepc.nox
1	0.1267210	0.1267210	0.7687010	0.7687010
2	1.0215735	0.8563098	0.8499409	0.8499409
3	0.1349317	0.1349317	0.3835492	0.3835492

3.1.3 Dropping Fights (to improve Post Model Fit)

lavaan (0.6-1) converged normally after 41 iterations

	Used	Total
Number of observations	115	134
Estimator	ML	Robust
Model Fit Test Statistic	86.668	72.796
Degrees of freedom	59	59
P-value (Chi-square)	0.011	0.107
Scaling correction factor		1.191
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1106.445	813.818
Degrees of freedom	78	78
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.973	0.981
Tucker-Lewis Index (TLI)	0.964	0.975
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1624.491	-1624.491
Loglikelihood unrestricted model (H1)	-1581.157	-1581.157
Number of free parameters	32	32
Akaike (AIC)	3312.982	3312.982
Bayesian (BIC)	3400.820	3400.820
Sample-size adjusted Bayesian (BIC)	3299.674	3299.674

Root Mean Square Error of Approximation:

RMSEA	0.064	0.045	
90 Percent Confidence Interval	0.031	0.091	0.000 0.074
P-value RMSEA <= 0.05	0.209	0.581	
Robust RMSEA		NA	
90 Percent Confidence Interval		0.000	NA

Standardized Root Mean Square Residual:

SRMR	0.053	0.053
------	-------	-------

Parameter Estimates:

Information	Observed
Observed information based on	Hessian
Standard Errors	Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)
Healthy_Rel_Skills_Before =~				
Hlthy_Rl_Bfr.n	1.000			
Communct_Bfr.n	0.775	0.128	6.036	0.000
CnflctMngmn_B.	0.932	0.090	10.411	0.000
Partner_Selection_Before =~				
RghtPrtnr_Bfr.	1.000			
LrnPrtnr_Bfr.n	1.086	0.069	15.777	0.000
PcRltnshp_Bfr.	1.003	0.098	10.264	0.000
WrnngSgns_Bfr.	0.963	0.101	9.552	0.000
Past_Rel_Behav_Before =~				
LrndGrwngUp_B.	1.000			
PstRltnshps_B.	0.919	0.103	8.964	0.000
GtAlngPrnts_B.	1.107	0.113	9.820	0.000
FrndshpsArL_B.	1.159	0.102	11.372	0.000
Rel_Behav_Attit_Before =~				
FlngsHrt_Bfr.n	1.000			
RghtndWrng_Bf.	0.808	0.117	6.917	0.000
Std.lv	Std.all			
0.852	0.858			
0.660	0.739			
0.794	0.821			
0.871	0.911			
0.945	0.914			
0.874	0.835			
0.839	0.809			
0.815	0.809			
0.749	0.721			
0.902	0.810			
0.945	0.846			
0.821	0.801			
0.664	0.726			

Covariances:

	Estimate	Std.Err	z-value	P(> z)		
Healthy_Rel_Skills_Before ~~						
Prtnr_Slctn_Bf	0.634	0.103	6.174	0.000		
Pst_Rl_Bhv_Bfr	0.377	0.099	3.791	0.000		
Rl_Bhv_Attn_Bf	0.423	0.120	3.530	0.000		
Partner_Selection_Before ~~						
Pst_Rl_Bhv_Bfr	0.412	0.086	4.799	0.000		
Rl_Bhv_Attn_Bf	0.387	0.101	3.841	0.000		
Past_Rel_Behav_Before ~~						
Rl_Bhv_Attn_Bf	0.607	0.108	5.623	0.000		
Std.lv	Std.all					
	0.855	0.855				
	0.542	0.542				
	0.605	0.605				
	0.581	0.581				
	0.542	0.542				
	0.908	0.908				

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.n	0.260	0.061	4.274	0.000	0.260	0.264
.Communct_Bfr.n	0.361	0.113	3.205	0.001	0.361	0.453
.CnflctMngmn_B.	0.305	0.064	4.777	0.000	0.305	0.326
.RghtPrtnr_Bfr.	0.155	0.035	4.381	0.000	0.155	0.170
.LrnPrtnr_Bfr.n	0.177	0.059	2.986	0.003	0.177	0.165
.PcRltnshp_Bfr.	0.331	0.083	3.990	0.000	0.331	0.302
.WrngSgns_Bfr.	0.372	0.085	4.396	0.000	0.372	0.346
.LrndGrwngUp_B.	0.351	0.075	4.711	0.000	0.351	0.346
.PstRltnshps_B.	0.518	0.096	5.381	0.000	0.518	0.480
.GtAlngPrnts_B.	0.426	0.084	5.055	0.000	0.426	0.344
.FrndshpsArL_B.	0.355	0.112	3.169	0.002	0.355	0.284
.FlngsHrt_Bfr.n	0.375	0.090	4.170	0.000	0.375	0.358
.RghtndWrng_Bf.	0.396	0.103	3.849	0.000	0.396	0.473
Hlthy_Rl_Skl_B	0.726	0.130	5.584	0.000	1.000	1.000
Prtnr_Slctn_Bf	0.758	0.105	7.248	0.000	1.000	1.000
Pst_Rl_Bhv_Bfr	0.664	0.127	5.237	0.000	1.000	1.000
Rl_Bhv_Attn_Bf	0.674	0.141	4.795	0.000	1.000	1.000

3.1.4 Modification Indices

	lhs	op	rhs	mi	epc
1	RightPartner_Before.n	~~	LearnPartner_Before.n	15.13632	0.1279175
2	PaceRelationship_Before.n	~~	WarningSigns_Before.n	11.53490	0.1338872
	sepc.lv	sepc.all	sepc.nox		
1	0.1279175	0.7731369	0.7731369		
2	0.1338872	0.3815659	0.3815659		

3.2 Post

3.2.1 Model Fit

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 73 iterations

	Used	Total
Number of observations	124	134
Estimator	ML	Robust
Model Fit Test Statistic	214.208	157.717
Degrees of freedom	71	71
P-value (Chi-square)	0.000	0.000
Scaling correction factor		1.358
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1315.909	768.734
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.883	0.872
Tucker-Lewis Index (TLI)	0.850	0.836
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1209.601	-1209.601
Loglikelihood unrestricted model (H1)	-1102.496	-1102.496
Number of free parameters	34	34
Akaike (AIC)	2487.201	2487.201
Bayesian (BIC)	2583.091	2583.091
Sample-size adjusted Bayesian (BIC)	2475.581	2475.581

Root Mean Square Error of Approximation:

RMSEA	0.128	0.099
90 Percent Confidence Interval	0.108 0.147	0.081 0.117

P-value RMSEA <= 0.05	0.000	0.000	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.090	0.090
------	-------	-------

Parameter Estimates:

Information	Observed
Observed information based on	Hessian
Standard Errors	Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills =~					
Healthy_Rel.n	1.000				0.423
Communicate.n	1.245	0.189	6.603	0.000	0.526
CnflctMngmnt.n	1.313	0.190	6.907	0.000	0.555
Partner_Selection =~					
RightPartner.n	1.000				0.514
LearnPartner.n	1.066	0.087	12.258	0.000	0.548
PaceReltnshp.n	1.050	0.096	10.986	0.000	0.540
WarningSigns.n	1.090	0.102	10.640	0.000	0.561
Past_Rel_Behav =~					
PastRltnshps.n	1.000				0.636
GetAlngPrnts.n	0.702	0.258	2.717	0.007	0.446
FrndshpsArLk.n	1.021	0.066	15.491	0.000	0.650
Rel_Behav_Attit =~					
Fights.n	1.529	0.429	3.567	0.000	0.604
LerndGrwngUp.n	1.052	0.168	6.262	0.000	0.415
FeelingsHurt.n	1.000				0.395
RightandWrng.n	1.150	0.218	5.271	0.000	0.454

Std.all

0.735
0.841
0.785

0.735
0.893
0.842
0.893

0.843
0.626

0.884

0.747

0.661

0.614

0.745

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills ~~					
Partner_Selctn	0.207	0.037	5.556	0.000	0.952
Past_Rel_Behav	0.120	0.038	3.165	0.002	0.445
Rel_Behav_Attn	0.117	0.040	2.925	0.003	0.700
Partner_Selection ~~					
Past_Rel_Behav	0.161	0.043	3.712	0.000	0.493
Rel_Behav_Attn	0.147	0.046	3.231	0.001	0.725
Past_Rel_Behav ~~					
Rel_Behav_Attn	0.242	0.048	5.009	0.000	0.963
Std.all					

0.952

0.445

0.700

0.493

0.725

0.963

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.n	0.152	0.030	5.006	0.000	0.152	0.460
.Communicate.n	0.114	0.027	4.188	0.000	0.114	0.292
.CnflctMngmnt.n	0.192	0.045	4.253	0.000	0.192	0.384
.RightPartner.n	0.225	0.053	4.252	0.000	0.225	0.459
.LearnPartner.n	0.076	0.019	3.997	0.000	0.076	0.202
.PaceReltnshp.n	0.120	0.028	4.216	0.000	0.120	0.291
.WarningSigns.n	0.080	0.027	3.006	0.003	0.080	0.202
.PastRltnshps.n	0.165	0.073	2.269	0.023	0.165	0.289
.GetAlngPrnts.n	0.309	0.107	2.899	0.004	0.309	0.608
.FrndshpsArLk.n	0.118	0.033	3.548	0.000	0.118	0.218
.Fights.n	0.289	0.083	3.460	0.001	0.289	0.442
.LerndGrwngUp.n	0.223	0.054	4.143	0.000	0.223	0.563
.FeelingsHurt.n	0.257	0.092	2.781	0.005	0.257	0.622
.RightandWrng.n	0.166	0.063	2.629	0.009	0.166	0.446
Hlthy_Rl_Sklls	0.179	0.038	4.644	0.000	1.000	1.000
Partner_Selctn	0.265	0.062	4.283	0.000	1.000	1.000
Past_Rel_Behav	0.405	0.148	2.730	0.006	1.000	1.000

Rel_Behav_Attn	0.156	0.059	2.663	0.008	1.000	1.000
	H1_R_S	Prtn_S	Ps_R_B	R1_B_A		
Healthy_Rel_Skills	1.000					
Partner_Selection	0.952	1.000				
Past_Rel_Behav	0.445	0.493	1.000			
Rel_Behav_Attit	0.700	0.725	0.963	1.000		

3.2.2 Modification Indices

- No covariances to add that make sense theoretically.

	lhs	op	rhs	mi	epc
1	WarningSigns.n	~~	FeelingsHurt.n	21.72534	0.07076666
2	Partner_Selection	==	GetAlongParents.n	20.97305	0.57395816
3	Partner_Selection	==	FeelingsHurt.n	18.25798	0.64853489
4	Healthy_Rel_Skills	==	GetAlongParents.n	17.81929	0.63657355
5	Rel_Behav_Attit	==	GetAlongParents.n	17.14802	1.93249759
6	Healthy_Rel_Skills	==	RightPartner.n	16.33779	2.77593655
7	ConflictManagement.n	~~	RightPartner.n	16.14992	0.08519985
8	Partner_Selection	==	Fights.n	13.49935	-0.66160480
9	Healthy_Rel_Skills	==	Fights.n	13.34619	-0.77657476
10	Healthy_Rel_Skills	==	FeelingsHurt.n	12.05663	0.62259818
11	Past_Rel_Behav	==	Fights.n	11.63467	1.13858738
12	Past_Rel_Behav	==	FeelingsHurt.n	11.20240	-0.93764407
13	FriendshipsAreLike.n	~~	FeelingsHurt.n	10.64287	-0.07020155
14	GetAlongParents.n	~~	FeelingsHurt.n	10.42659	0.08718744
	sepc.lv	sepc.all	sepc.nox		
1	0.07076666	0.4946292	0.4946292		
2	0.29520317	0.4141803	0.4141803		
3	0.33356013	0.5191723	0.5191723		
4	0.26899589	0.3774106	0.3774106		
5	0.76286509	1.0703263	1.0703263		
6	1.17302316	1.6769976	1.6769976		
7	0.08519985	0.4103599	0.4103599		
8	-0.34028236	-0.4210459	-0.4210459		
9	-0.32815598	-0.4060414	-0.4060414		
10	0.26309034	0.4094890	0.4094890		
11	0.72426788	0.8961675	0.8961675		
12	-0.59644564	-0.9283425	-0.9283425		
13	-0.07020155	-0.4032029	-0.4032029		
14	0.08718744	0.3095213	0.3095213		

3.2.3 Dropping Fights

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 68 iterations

	Used	Total
Number of observations	125	134
Estimator	ML	Robust
Model Fit Test Statistic	159.582	116.471
Degrees of freedom	59	59
P-value (Chi-square)	0.000	0.000
Scaling correction factor		1.370
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1177.023	666.691
Degrees of freedom	78	78
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.908	0.902
Tucker-Lewis Index (TLI)	0.879	0.871
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1111.712	-1111.712
Loglikelihood unrestricted model (H1)	-1031.921	-1031.921
Number of free parameters	32	32
Akaike (AIC)	2287.424	2287.424
Bayesian (BIC)	2377.930	2377.930
Sample-size adjusted Bayesian (BIC)	2276.740	2276.740

Root Mean Square Error of Approximation:

RMSEA	0.117	0.088
90 Percent Confidence Interval	0.095 0.139	0.068 0.108
P-value RMSEA <= 0.05	0.000	0.002

Robust RMSEA	NA	
90 Percent Confidence Interval	NA	NA

Standardized Root Mean Square Residual:

SRMR	0.078	0.078
------	-------	-------

Parameter Estimates:

Information	Observed
Observed information based on	Hessian
Standard Errors	Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills =~					
Healthy_Rel.n	1.000				0.426
Communicate.n	1.219	0.188	6.492	0.000	0.519
CnflctMngmnt.n	1.312	0.191	6.857	0.000	0.559
Partner_Selection =~					
RightPartner.n	1.000				0.511
LearnPartner.n	1.064	0.089	11.908	0.000	0.544
PaceReltnshp.n	1.048	0.093	11.228	0.000	0.535
WarningSigns.n	1.098	0.108	10.203	0.000	0.561
Past_Rel_Behav =~					
LerndGrwngUp.n	1.000				0.434
PastRltnshps.n	1.411	0.473	2.983	0.003	0.613
GetAlngPrnts.n	1.102	0.134	8.244	0.000	0.479
FrndshpsArLk.n	1.444	0.477	3.027	0.002	0.627
Rel_Behav_Attit =~					
FeelingsHurt.n	1.000				0.425
RightandWrng.n	1.013	0.225	4.495	0.000	0.430
Std.all					

0.741
0.832
0.793

0.733
0.887
0.836
0.895

0.692
0.814
0.673
0.855

0.663
0.708

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills ~~					
Partner_Selctn	0.207	0.037	5.582	0.000	0.950
Past_Rel_Behav	0.092	0.048	1.920	0.055	0.498
Rel_Behav_Attn	0.142	0.038	3.765	0.000	0.783
Partner_Selection ~~					
Past_Rel_Behav	0.120	0.056	2.161	0.031	0.541
Rel_Behav_Attn	0.192	0.049	3.957	0.000	0.886
Past_Rel_Behav ~~					
Rel_Behav_Attn	0.172	0.060	2.881	0.004	0.932
Std.all					

0.950
0.498
0.783

0.541
0.886

0.932

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.n	0.149	0.030	4.971	0.000	0.149	0.451
.Communicate.n	0.120	0.028	4.222	0.000	0.120	0.308
.CnflctMngmnt.n	0.184	0.044	4.147	0.000	0.184	0.372
.RightPartner.n	0.225	0.052	4.334	0.000	0.225	0.463
.LearnPartner.n	0.080	0.019	4.162	0.000	0.080	0.212
.PaceReltnshp.n	0.123	0.028	4.398	0.000	0.123	0.301
.WarningSigns.n	0.078	0.023	3.395	0.001	0.078	0.200
.LerndGrwngUp.n	0.205	0.066	3.098	0.002	0.205	0.521
.PastRltnshps.n	0.191	0.083	2.311	0.021	0.191	0.338
.GetAlngPrnts.n	0.277	0.106	2.623	0.009	0.277	0.547
.FrndshpsArLk.n	0.145	0.047	3.052	0.002	0.145	0.269
.FeelingsHurt.n	0.230	0.090	2.558	0.011	0.230	0.561
.RightandWrng.n	0.185	0.080	2.304	0.021	0.185	0.499
Hlthy_Rl_Sklls	0.181	0.038	4.711	0.000	1.000	1.000
Partner_Selctn	0.261	0.061	4.262	0.000	1.000	1.000
Past_Rel_Behav	0.189	0.072	2.634	0.008	1.000	1.000
Rel_Behav_Attn	0.180	0.054	3.341	0.001	1.000	1.000

3.2.4 Modification Indices

	lhs	op	rhs	mi	epc
1	PastRelationships.n	~~	FriendshipsAreLike.n	26.81387	0.16099181
2	Healthy_Rel_Skills	=~	RightPartner.n	24.58676	3.04913865
3	WarningSigns.n	~~	FeelingsHurt.n	18.71951	0.06348357
4	Partner_Selection	=~	GetAlongParents.n	17.10371	0.52944491
5	Rel_Behav_Attit	=~	GetAlongParents.n	16.79754	1.13916071
6	ConflictManagement.n	~~	RightPartner.n	14.76019	0.08039421
7	Healthy_Rel_Skills	=~	GetAlongParents.n	13.01616	0.54239922
8	Partner_Selection	=~	FriendshipsAreLike.n	11.64509	-0.40277423
9	PastRelationships.n	~~	GetAlongParents.n	11.16485	-0.09296354
	sepc.lv	sepc.all	sepc.nox		
1	0.16099181	0.9677790	0.9677790		
2	1.29812552	1.8613103	1.8613103		
3	0.06348357	0.4722071	0.4722071		
4	0.27055273	0.3803494	0.3803494		
5	0.48367197	0.6799575	0.6799575		
6	0.08039421	0.3944227	0.3944227		
7	0.23091842	0.3246306	0.3246306		
8	-0.20582249	-0.2807131	-0.2807131		
9	-0.09296354	-0.4039487	-0.4039487		

3.2.5 Adding Error covariance

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 67 iterations

	Used	Total
Number of observations	125	134
Estimator	ML	Robust
Model Fit Test Statistic	130.707	92.515
Degrees of freedom	57	57
P-value (Chi-square)	0.000	0.002
Scaling correction factor		1.413
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1177.023	666.691
Degrees of freedom	78	78
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.933	0.940
Tucker-Lewis Index (TLI)	0.908	0.917
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1097.274	-1097.274
Loglikelihood unrestricted model (H1)	-1031.921	-1031.921
Number of free parameters	34	34
Akaike (AIC)	2262.549	2262.549
Bayesian (BIC)	2358.712	2358.712
Sample-size adjusted Bayesian (BIC)	2251.197	2251.197

Root Mean Square Error of Approximation:

RMSEA	0.102	0.071
90 Percent Confidence Interval	0.079 0.125	0.048 0.092
P-value RMSEA <= 0.05	0.000	0.068

Robust RMSEA	NA	
90 Percent Confidence Interval	NA	NA

Standardized Root Mean Square Residual:

SRMR	0.058	0.058
------	-------	-------

Parameter Estimates:

Information	Observed
Observed information based on	Hessian
Standard Errors	Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills =~					
Healthy_Rel.n	1.000				0.425
Communicate.n	1.220	0.188	6.490	0.000	0.519
CnflctMngmnt.n	1.315	0.192	6.841	0.000	0.559
Partner_Selection =~					
RightPartner.n	1.000				0.511
LearnPartner.n	1.065	0.090	11.896	0.000	0.544
PaceReltnshp.n	1.049	0.093	11.254	0.000	0.536
WarningSigns.n	1.097	0.108	10.161	0.000	0.560
Past_Rel_Behav =~					
LerndGrwngUp.n	1.000				0.452
PastRltnshps.n	1.189	0.145	8.194	0.000	0.537
GetAlngPrnts.n	1.205	0.258	4.672	0.000	0.545
FrndshpsArLk.n	1.175	0.134	8.798	0.000	0.531
Rel_Behav_Attit =~					
FeelingsHurt.n	1.000				0.435
RightandWrng.n	0.964	0.236	4.090	0.000	0.420
Std.all					

0.740
0.831
0.794

0.733
0.888
0.837
0.894

0.720
0.713
0.765
0.724

0.679
0.690

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
.PastRelationships.n ~~					
.FrndshpsArLk.n	0.137	0.141	0.966	0.334	0.137
.GetAlngPrnts.n	-0.053	0.029	-1.835	0.067	-0.053
Healthy_Rel_Skills ~~					
Partner_Selctn	0.207	0.037	5.565	0.000	0.950
Past_Rel_Behav	0.114	0.035	3.250	0.001	0.592
Rel_Behav_Attt	0.145	0.037	3.955	0.000	0.784
Partner_Selection ~~					
Past_Rel_Behav	0.151	0.035	4.376	0.000	0.656
Rel_Behav_Attt	0.199	0.049	4.029	0.000	0.895
Past_Rel_Behav ~~					
Rel_Behav_Attt	0.198	0.043	4.597	0.000	1.009
Std.all					

0.512
-0.219

0.950
0.592
0.784

0.656
0.895

1.009

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.n	0.149	0.030	4.976	0.000	0.149	0.452
.Communicate.n	0.120	0.028	4.237	0.000	0.120	0.309
.CnflctMngmnt.n	0.184	0.044	4.135	0.000	0.184	0.370
.RightPartner.n	0.225	0.052	4.329	0.000	0.225	0.463
.LearnPartner.n	0.079	0.019	4.162	0.000	0.079	0.211
.PaceReltnshp.n	0.123	0.028	4.400	0.000	0.123	0.300
.WarningSigns.n	0.079	0.023	3.410	0.001	0.079	0.202
.LerndGrwngUp.n	0.190	0.056	3.414	0.001	0.190	0.481
.PastRltnshps.n	0.279	0.149	1.876	0.061	0.279	0.491
.GetAlngPrnts.n	0.209	0.067	3.150	0.002	0.209	0.414
.FrndshpsArLk.n	0.256	0.142	1.803	0.071	0.256	0.475
.FeelingsHurt.n	0.221	0.082	2.690	0.007	0.221	0.538
.RightandWrng.n	0.194	0.082	2.370	0.018	0.194	0.524
Hlthy_Rl_Skills	0.181	0.039	4.695	0.000	1.000	1.000
Partner_Selctn	0.261	0.061	4.271	0.000	1.000	1.000

Past_Rel_Behav	0.204	0.061	3.347	0.001	1.000	1.000
Rel_Behav_Attn	0.190	0.056	3.385	0.001	1.000	1.000

3.2.6 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Past_Rel_Behav Rel_Behav_Attit

	lhs	op	rhs	mi	epc
1	Healthy_Rel_Skills	=~	RightPartner.n	25.07439	3.08632122
2	WarningSigns.n	~~	FeelingsHurt.n	17.52276	0.06192264
3	Communicate.n	~~	GetAlongParents.n	15.12484	-0.07260986
4	ConflictManagement.n	~~	RightPartner.n	14.58436	0.07977360
5	Communicate.n	~~	LearnedGrowingUp.n	11.72137	0.05728113
	sepc.lv	sepc.all	sepc.nox		
1	1.31282562	1.8823900	1.8823900		
2	0.06192264	0.4677474	0.4677474		
3	-0.07260986	-0.4575285	-0.4575285		
4	0.07977360	0.3922452	0.3922452		
5	0.05728113	0.3794884	0.3794884		

3.2.7 Warning

- CFA at post yields good fit if we drop fights and add several covariances (these should be checked for theoretical justification), but the model is still non-positive definite due to a correlation greater than 1 between latent variables.
- The data suggest that there are really only two factors. It could be that there are more than two, but the division of the items into additional factors yields factors that are so similar to one another that only 2 of the 4 can be used.
- CFA could be done on one factor at a time, but with only 3 items on 2 of the factors it would not be informative for those factors. This is because CFA on a single latent variable with 3 factors is just identified and has perfect fit.
- It would be best to try for a two-factor solution or use the four-factor solution, but only use 2 of the factors in subsequent analyses.
- As seen below, reliability is good for all factors. However, the factors are redundant. If continuing with the 4 factor solution, the “fights” item should probably be placed on a different factor or dropped. It is not loading in the hypothesized way (see EFAs) and, therefore, may be interpreted by participants differently than expected. This raises questions about the meaning of the latent construct it is included on.
- Finally, robust maximum likelihood (MLR) was used to estimate CFA models. This helps adjust for the non-normal nature of the items. Items with only 3 actual categories probably are too non-normal and have too few categories to be fully addressed using MLR. They are better treated as categorical which has the added benefit of not treating the difference in response category levels as interval (i.e., equal).

3.3 Change

3.3.1 Model Fit

lavaan (0.6-1) converged normally after 46 iterations

	Used	Total
Number of observations	111	134
Estimator	ML	Robust
Model Fit Test Statistic	104.274	90.726
Degrees of freedom	71	71
P-value (Chi-square)	0.006	0.057
Scaling correction factor		1.149
for the Yuan-Bentler correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	1328.961	1068.315
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.973	0.980
Tucker-Lewis Index (TLI)	0.966	0.974
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Loglikelihood and Information Criteria:

Loglikelihood user model (H0)	-1750.876	-1750.876
Loglikelihood unrestricted model (H1)	-1698.740	-1698.740
Number of free parameters	34	34
Akaike (AIC)	3569.753	3569.753
Bayesian (BIC)	3661.877	3661.877
Sample-size adjusted Bayesian (BIC)	3554.430	3554.430

Root Mean Square Error of Approximation:

RMSEA	0.065	0.050	
90 Percent Confidence Interval	0.035 0.091	0.007 0.077	
P-value RMSEA <= 0.05	0.178	0.480	
Robust RMSEA		NA	

90 Percent Confidence Interval

NA

NA

Standardized Root Mean Square Residual:

SRMR

0.041

0.041

Parameter Estimates:

Information

Observed

Observed information based on

Hessian

Standard Errors

Robust.huber.white

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills =~					
Helthy_Rl_Chng	1.000				0.869
Communct_Chng	0.890	0.169	5.276	0.000	0.774
CnflctMngmnt_C	1.096	0.140	7.811	0.000	0.953
Partner_Selection =~					
RghtPrtnr_Chng	1.000				1.107
LernPrtnr_Chng	0.976	0.054	17.962	0.000	1.081
PcRltnshp_Chng	0.977	0.069	14.116	0.000	1.082
WrnngSgns_Chng	0.911	0.060	15.107	0.000	1.009
Past_Rel_Behav =~					
LrndGrwngUp_Ch	1.000				0.799
PstRltnshps_Ch	1.005	0.106	9.464	0.000	0.803
GtAlngPrnts_Ch	1.252	0.126	9.931	0.000	1.001
FrndshpsArLk_C	1.180	0.113	10.440	0.000	0.943
Rel_Behav_Attit =~					
Fights_Change	1.000				0.878
FelngsHrt_Chng	1.016	0.109	9.315	0.000	0.892
RghtndWrng_Chn	0.837	0.098	8.509	0.000	0.735
Std.all					

0.827

0.760

0.855

0.913

0.911

0.872

0.854

0.772

0.767

0.870

0.895

0.716
0.833
0.766

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Healthy_Rel_Skills ~~					
Partner_Selctn	0.853	0.142	6.017	0.000	0.887
Past_Rel_Behav	0.466	0.115	4.064	0.000	0.671
Rel_Behav_Attn	0.535	0.147	3.633	0.000	0.700
Partner_Selection ~~					
Past_Rel_Behav	0.562	0.108	5.180	0.000	0.634
Rel_Behav_Attn	0.642	0.136	4.726	0.000	0.660
Past_Rel_Behav ~~					
Rel_Behav_Attn	0.674	0.142	4.744	0.000	0.960
Std.all					

0.887
0.671
0.700

0.634
0.660

0.960

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rl_Chng	0.349	0.085	4.107	0.000	0.349	0.316
.Communicat_Chng	0.438	0.122	3.578	0.000	0.438	0.422
.CnflctMngmnt_C	0.333	0.079	4.223	0.000	0.333	0.268
.RghtPrtnr_Chng	0.243	0.045	5.469	0.000	0.243	0.166
.LernPrtnr_Chng	0.241	0.063	3.819	0.000	0.241	0.171
.PcRltnshp_Chng	0.367	0.089	4.148	0.000	0.367	0.239
.WrngSgns_Chng	0.378	0.077	4.927	0.000	0.378	0.271
.LrndGrwngUp_Ch	0.433	0.082	5.283	0.000	0.433	0.404
.PstRltnshps_Ch	0.451	0.070	6.435	0.000	0.451	0.411
.GtAlngPrnts_Ch	0.321	0.067	4.807	0.000	0.321	0.243
.FrndshpsArLk_C	0.220	0.047	4.706	0.000	0.220	0.198
.Fights_Change	0.733	0.198	3.711	0.000	0.733	0.487
.FelngsHrt_Chng	0.352	0.077	4.565	0.000	0.352	0.307
.RghtndWrng_Ch	0.381	0.069	5.485	0.000	0.381	0.414
Hlthy_Rl_Skills	0.755	0.171	4.421	0.000	1.000	1.000
Partner_Selctn	1.226	0.189	6.487	0.000	1.000	1.000
Past_Rel_Behav	0.639	0.124	5.166	0.000	1.000	1.000
Rel_Behav_Attn	0.771	0.213	3.623	0.000	1.000	1.000

3.3.2 Modification Indices

	lhs	op	rhs	mi	epc
1	WarningSigns.n	~~	FeelingsHurt.n	21.72534	0.07076666
2	Partner_Selection	=~	GetAlongParents.n	20.97305	0.57395816
3	Partner_Selection	=~	FeelingsHurt.n	18.25798	0.64853489
4	Healthy_Rel_Skills	=~	GetAlongParents.n	17.81929	0.63657355
5	Rel_Behav_Attit	=~	GetAlongParents.n	17.14802	1.93249759
6	Healthy_Rel_Skills	=~	RightPartner.n	16.33779	2.77593655
7	ConflictManagement.n	~~	RightPartner.n	16.14992	0.08519985
8	Partner_Selection	=~	Fights.n	13.49935	-0.66160480
9	Healthy_Rel_Skills	=~	Fights.n	13.34619	-0.77657476
10	Healthy_Rel_Skills	=~	FeelingsHurt.n	12.05663	0.62259818
11	Past_Rel_Behav	=~	Fights.n	11.63467	1.13858738
12	Past_Rel_Behav	=~	FeelingsHurt.n	11.20240	-0.93764407
13	FriendshipsAreLike.n	~~	FeelingsHurt.n	10.64287	-0.07020155
14	GetAlongParents.n	~~	FeelingsHurt.n	10.42659	0.08718744
	sepc.lv	sepc.all	sepc.nox		
1	0.07076666	0.4946292	0.4946292		
2	0.29520317	0.4141803	0.4141803		
3	0.33356013	0.5191723	0.5191723		
4	0.26899589	0.3774106	0.3774106		
5	0.76286509	1.0703263	1.0703263		
6	1.17302316	1.6769976	1.6769976		
7	0.08519985	0.4103599	0.4103599		
8	-0.34028236	-0.4210459	-0.4210459		
9	-0.32815598	-0.4060414	-0.4060414		
10	0.26309034	0.4094890	0.4094890		
11	0.72426788	0.8961675	0.8961675		
12	-0.59644564	-0.9283425	-0.9283425		
13	-0.07020155	-0.4032029	-0.4032029		
14	0.08718744	0.3095213	0.3095213		

4 Reliability of Scales (Using Analytic Sample): Chronbach's Alpha (Assumes Factor Loadings are Equivalent)

4.1 Retrospective-Pre

4.1.1 Perceived Knowledge About Relationship Skills

4.1.1.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.84	0.84	0.78	0.64	5.4	0.023	3.1	0.86	0.65

lower	alpha	upper	95% confidence boundaries
0.8	0.84	0.89	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N
Healthy_Rel_Before.n	0.79	0.79	0.66	0.66	3.8
Communicate_Before.n	0.79	0.79	0.65	0.65	3.7
ConflictManagement_Before.n	0.76	0.77	0.62	0.62	3.3

	alpha	se	var.r	med.r
Healthy_Rel_Before.n	0.036	NA	0.66	
Communicate_Before.n	0.037	NA	0.65	
ConflictManagement_Before.n	0.040	NA	0.62	

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Healthy_Rel_Before.n	131	0.89	0.87	0.76	0.70	3.1	1.04
Communicate_Before.n	130	0.86	0.87	0.77	0.70	3.3	0.90
ConflictManagement_Before.n	125	0.88	0.88	0.79	0.72	3.1	0.96

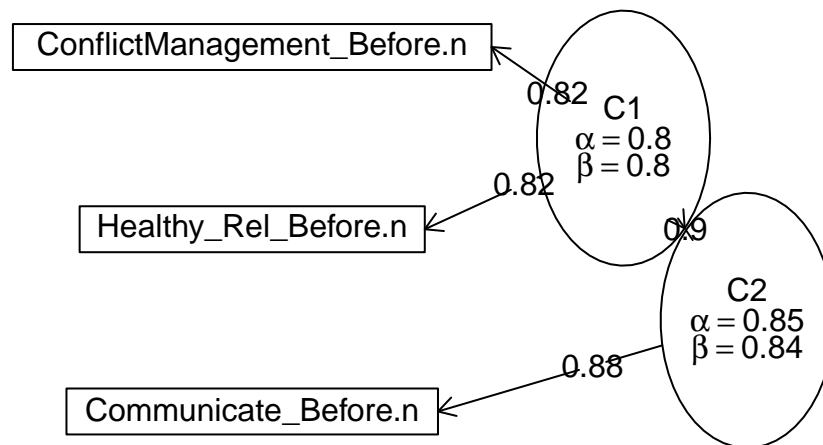
Non missing response frequency for each item

	1	2	3	4	5	miss
Healthy_Rel_Before.n	0.10	0.17	0.36	0.33	0.05	0.02
Communicate_Before.n	0.03	0.16	0.38	0.38	0.05	0.03
ConflictManagement_Before.n	0.07	0.14	0.42	0.33	0.05	0.07

4.1.1.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.85
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.84
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

	[,1]
Healthy_Rel_Before.n	0.78
Communicate_Before.n	0.76
ConflictManagement_Before.n	0.80

With eigenvalues of:

[1] 1.8

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.85

Cluster fit = 0.91 Pattern fit = 1 RMSR = 0.05

4.1.1.3 Summary

Cronbach's $\alpha = 0.84$ Congeneric reliability $\beta = 0.84$

4.1.2 Perceived Knowledge About Partner Selection

4.1.2.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.93	0.93	0.91	0.76	13	0.01	2.8	0.94	0.75

lower	alpha	upper	95% confidence boundaries
0.91	0.93	0.95	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N
RightPartner_Before.n	0.90	0.90	0.85	0.74	8.6
LearnPartner_Before.n	0.90	0.90	0.86	0.75	8.9
PaceRelationship_Before.n	0.91	0.91	0.88	0.77	9.9
WarningSigns_Before.n	0.92	0.92	0.89	0.79	11.2

	alpha	se	var.r	med.r
RightPartner_Before.n	0.016	0.00075	0.75	
LearnPartner_Before.n	0.015	0.00030	0.75	
PaceRelationship_Before.n	0.014	0.00669	0.73	
WarningSigns_Before.n	0.013	0.00381	0.75	

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
RightPartner_Before.n	130	0.92	0.92	0.90	0.86	2.8	1.0
LearnPartner_Before.n	130	0.92	0.92	0.89	0.85	2.8	1.0
PaceRelationship_Before.n	130	0.90	0.90	0.85	0.82	2.8	1.1
WarningSigns_Before.n	129	0.89	0.88	0.82	0.79	2.9	1.1

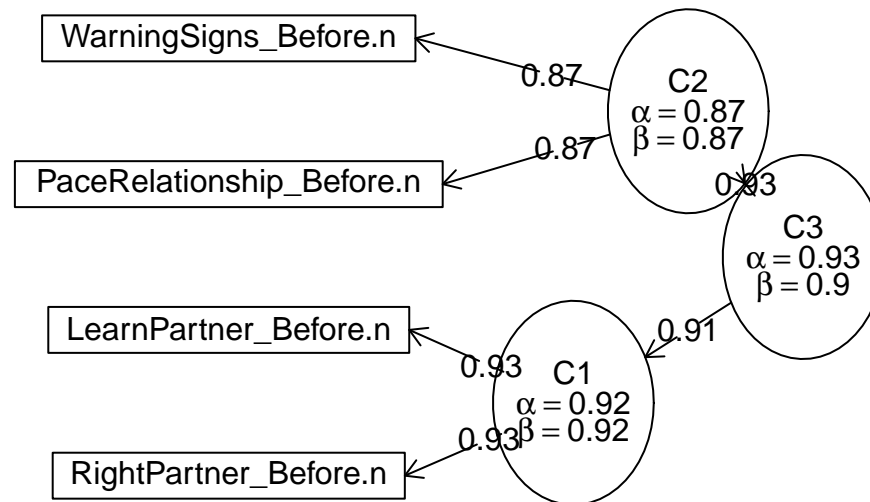
Non missing response frequency for each item

	1	2	3	4	5	miss
RightPartner_Before.n	0.14	0.19	0.43	0.22	0.02	0.03
LearnPartner_Before.n	0.14	0.20	0.36	0.28	0.02	0.03
PaceRelationship_Before.n	0.15	0.22	0.36	0.25	0.02	0.03
WarningSigns_Before.n	0.12	0.22	0.31	0.32	0.03	0.04

4.1.2.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.93
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.9
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

	[,1]
RightPartner_Before.n	0.90
LearnPartner_Before.n	0.89
PaceRelationship_Before.n	0.85
WarningSigns_Before.n	0.82

With eigenvalues of:

[1] 3

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.93

Cluster fit = 0.97 Pattern fit = 1 RMSR = 0.04

4.1.2.3 Summary

Cronbach's $\alpha = 0.93$ Congeneric reliability $\beta = 0.9$

4.1.3 Perceived Importance of Knowledge About a Potential Partner's Relationships Patterns

4.1.3.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(sm)	average_r	S/N	ase	mean	sd	median_r
0.87	0.87	0.84	0.62	6.6	0.018	3.4	0.92	0.63

lower	alpha	upper	95% confidence boundaries
0.83	0.87	0.91	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(sm)	average_r	S/N
LearnedGrowingUp_Before.n	0.84	0.84	0.79	0.64	5.2
PastRelationships_Before.n	0.85	0.85	0.79	0.65	5.6
GetAlongParents_Before.n	0.84	0.84	0.78	0.63	5.2
FriendshipsAreLike_Before.n	0.80	0.80	0.73	0.58	4.1

	alpha	se	var.r	med.r
LearnedGrowingUp_Before.n	0.024	0.00587	0.67	
PastRelationships_Before.n	0.023	0.00161	0.66	
GetAlongParents_Before.n	0.024	0.00302	0.66	
FriendshipsAreLike_Before.n	0.030	0.00093	0.57	

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
LearnedGrowingUp_Before.n	126	0.83	0.84	0.75	0.71	3.3	1.0
PastRelationships_Before.n	125	0.82	0.82	0.73	0.68	3.3	1.1
GetAlongParents_Before.n	125	0.84	0.84	0.76	0.71	3.5	1.1
FriendshipsAreLike_Before.n	126	0.90	0.89	0.85	0.80	3.4	1.1

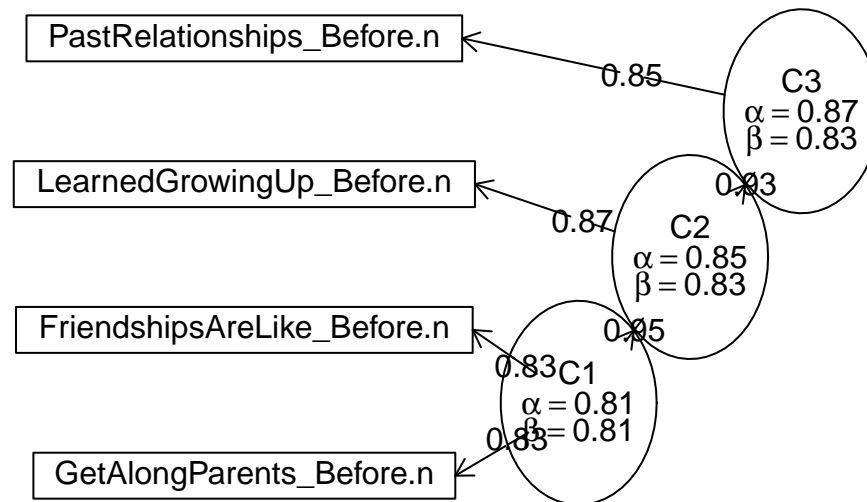
Non missing response frequency for each item

	1	2	3	4	5	miss
LearnedGrowingUp_Before.n	0.06	0.13	0.36	0.35	0.11	0.06
PastRelationships_Before.n	0.06	0.15	0.34	0.33	0.13	0.07
GetAlongParents_Before.n	0.05	0.13	0.33	0.28	0.22	0.07
FriendshipsAreLike_Before.n	0.05	0.17	0.32	0.29	0.18	0.06

4.1.3.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.87
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.83
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

```
      [,1]
LearnedGrowingUp_Before.n    0.76
PastRelationships_Before.n    0.73
GetAlongParents_Before.n     0.76
FriendshipsAreLike_Before.n  0.85
```

With eigenvalues of:

[1] 2.4

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

```
      [,1]
[1,] 0.87
```

Cluster fit = 0.92 Pattern fit = 1 RMSR = 0.03

4.1.3.3 Summary

Cronbach's $\alpha = 0.87$ Congeneric reliability $\beta = 0.83$

4.1.4 Perceived Importance of Knowledge About a Potential Partner's Relationship Behavior and Attitudes

4.1.4.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.77	0.78	0.7	0.54	3.5	0.033	3.6	0.85	0.54

lower	alpha	upper	95% confidence boundaries
0.71	0.77	0.84	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
Fights_Before.n	0.71	0.71	0.55	0.55	2.5	0.050	
FeelingsHurt_Before.n	0.68	0.69	0.52	0.52	2.2	0.054	
RightandWrong_Before.n	0.70	0.70	0.54	0.54	2.4	0.051	

	var.r	med.r
Fights_Before.n	NA	0.55
FeelingsHurt_Before.n	NA	0.52
RightandWrong_Before.n	NA	0.54

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Fights_Before.n	127	0.84	0.83	0.68	0.61	3.5	1.10
FeelingsHurt_Before.n	126	0.84	0.84	0.71	0.63	3.5	1.02
RightandWrong_Before.n	127	0.81	0.83	0.69	0.61	3.7	0.91

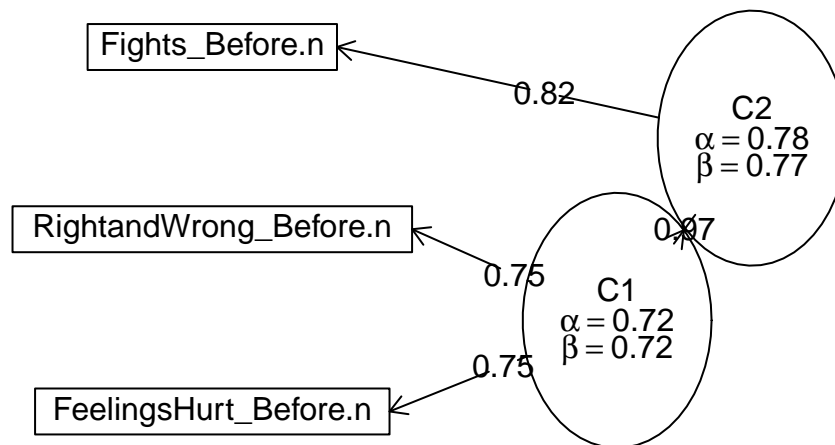
Non missing response frequency for each item

	1	2	3	4	5	miss
Fights_Before.n	0.06	0.10	0.28	0.37	0.19	0.05
FeelingsHurt_Before.n	0.04	0.12	0.25	0.44	0.15	0.06
RightandWrong_Before.n	0.02	0.07	0.27	0.45	0.20	0.05

4.1.4.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.78
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.77
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

```
          [,1]
Fights_Before.n      0.68
FeelingsHurt_Before.n 0.72
RightandWrong_Before.n 0.70
```

With eigenvalues of:

[1] 1.5

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

```
          [,1]
[1,] 0.78
```

Cluster fit = 0.83 Pattern fit = 1 RMSR = 0.05

4.1.4.3 Summary

Cronbach's $\alpha = 0.77$ Congeneric reliability $\beta = 0.77$

4.2 Post

4.2.1 Perceived Knowledge About Relationship Skills

4.2.1.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.79	0.8	0.73	0.57	4	0.03	4.4	0.65	0.59

lower	alpha	upper	95% confidence boundaries
0.73	0.79	0.85	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
Healthy_Rel.n	0.73	0.74	0.59	0.59	2.9	0.045	
Communicate.n	0.68	0.70	0.54	0.54	2.4	0.052	
ConflictManagement.n	0.74	0.74	0.59	0.59	2.8	0.045	

	var.r	med.r
Healthy_Rel.n	NA	0.59
Communicate.n	NA	0.54
ConflictManagement.n	NA	0.59

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Healthy_Rel.n	131	0.83	0.84	0.71	0.63	4.5	0.57
Communicate.n	130	0.87	0.86	0.75	0.67	4.4	0.62
ConflictManagement.n	134	0.91	0.84	0.71	0.64	4.3	0.78

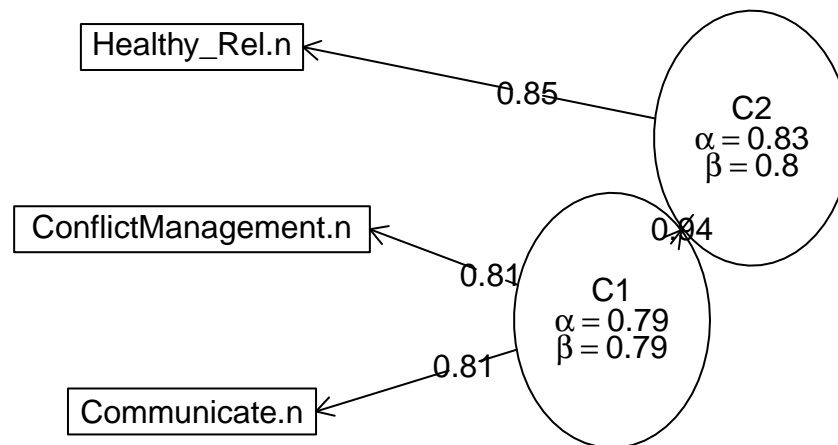
Non missing response frequency for each item

	1	2	3	4	5	miss
Healthy_Rel.n	0.00	0.00	0.04	0.42	0.54	0.02
Communicate.n	0.00	0.01	0.05	0.45	0.49	0.03
ConflictManagement.n	0.01	0.01	0.11	0.43	0.43	0.00

4.2.1.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.83
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.8
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

	[,1]
Healthy_Rel.n	0.71
Communicate.n	0.76
ConflictManagement.n	0.78

With eigenvalues of:

[1] 1.7

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.83

Cluster fit = 0.89 Pattern fit = 1 RMSR = 0.05

4.2.1.3 Summary

Cronbach's $\alpha = 0.79$ Congeneric reliability $\beta = 0.8$

4.2.2 Perceived Knowledge About Partner Selection

4.2.2.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.88	0.88	0.86	0.65	7.5	0.017	4.5	0.57	0.63

lower	alpha	upper	95% confidence boundaries
0.85	0.88	0.91	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
RightPartner.n	0.88	0.88	0.84	0.70	7.1	0.019	
LearnPartner.n	0.85	0.86	0.81	0.66	5.9	0.023	
PaceRelationship.n	0.84	0.84	0.79	0.64	5.4	0.024	
WarningSigns.n	0.81	0.82	0.75	0.60	4.4	0.028	

	var.r	med.r
RightPartner.n	0.0056	0.72
LearnPartner.n	0.0094	0.64
PaceRelationship.n	0.0046	0.64
WarningSigns.n	0.0006	0.58

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
RightPartner.n	131	0.83	0.81	0.71	0.67	4.4	0.70
LearnPartner.n	132	0.88	0.85	0.77	0.72	4.5	0.68
PaceRelationship.n	133	0.84	0.87	0.81	0.75	4.5	0.63
WarningSigns.n	132	0.91	0.91	0.89	0.83	4.5	0.62

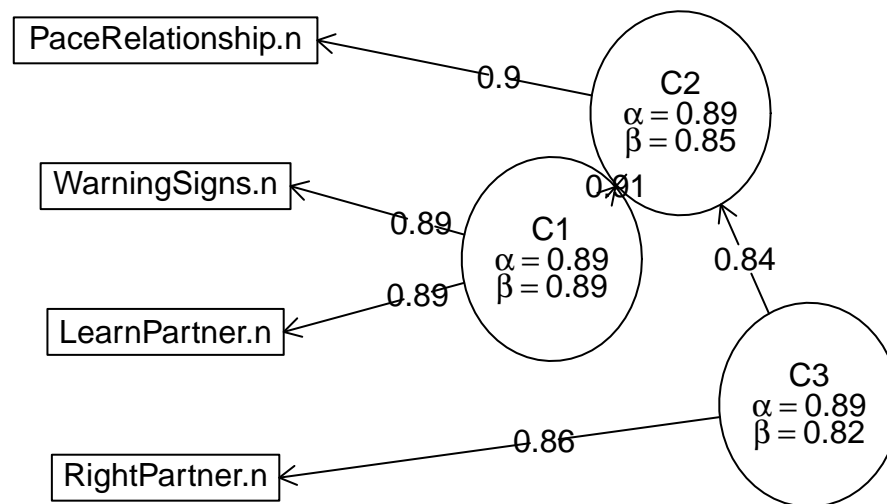
Non missing response frequency for each item

	1	2	3	4	5	miss
RightPartner.n	0.00	0.02	0.08	0.41	0.50	0.02
LearnPartner.n	0.01	0.01	0.04	0.33	0.61	0.01
PaceRelationship.n	0.00	0.01	0.05	0.35	0.59	0.01
WarningSigns.n	0.00	0.02	0.02	0.36	0.60	0.01

4.2.2.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.89
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.82
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

	[,1]
RightPartner.n	0.72
LearnPartner.n	0.84
PaceRelationship.n	0.79
WarningSigns.n	0.91

With eigenvalues of:

[1] 2.7

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.89

Cluster fit = 0.95 Pattern fit = 1 RMSR = 0.04

4.2.2.3 Summary

Cronbach's $\alpha = 0.88$ Congeneric reliability $\beta = 0.82$

4.2.3 Perceived Importance of Knowledge About a Potential Partner's Relationships Patterns

4.2.3.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.83	0.83	0.81	0.56	5	0.024	4.5	0.59	0.56

lower	alpha	upper	95% confidence boundaries
0.79	0.83	0.88	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
LearnedGrowingUp.n	0.80	0.80	0.75	0.57	3.9	0.031	
PastRelationships.n	0.78	0.78	0.70	0.54	3.5	0.033	
GetAlongParents.n	0.83	0.83	0.77	0.62	4.8	0.025	
FriendshipsAreLike.n	0.75	0.75	0.68	0.50	3.0	0.038	
	var.r	med.r					
LearnedGrowingUp.n	0.02059	0.56					
PastRelationships.n	0.00095	0.55					
GetAlongParents.n	0.00738	0.58					
FriendshipsAreLike.n	0.00592	0.50					

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
LearnedGrowingUp.n	132	0.79	0.81	0.70	0.65	4.5	0.65
PastRelationships.n	133	0.85	0.83	0.78	0.69	4.5	0.80
GetAlongParents.n	133	0.75	0.76	0.63	0.57	4.5	0.71
FriendshipsAreLike.n	132	0.87	0.86	0.82	0.75	4.5	0.73

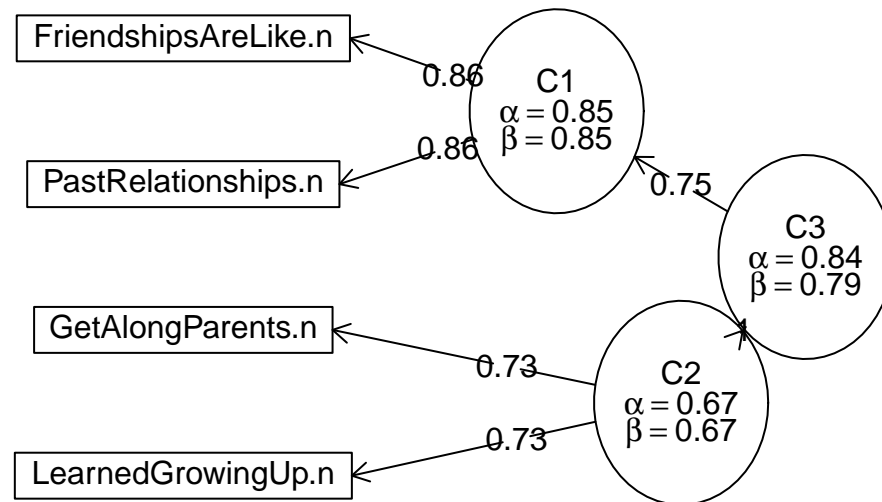
Non missing response frequency for each item

	1	2	3	4	5	miss
LearnedGrowingUp.n	0.00	0.00	0.08	0.35	0.57	0.01
PastRelationships.n	0.02	0.02	0.04	0.27	0.65	0.01
GetAlongParents.n	0.01	0.00	0.08	0.31	0.60	0.01
FriendshipsAreLike.n	0.02	0.00	0.05	0.34	0.60	0.01

4.2.3.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.84
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.79
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

```
      [,1]  
LearnedGrowingUp.n 0.70  
PastRelationships.n 0.79  
GetAlongParents.n  0.63  
FriendshipsAreLike.n 0.84
```

With eigenvalues of:

[1] 2.2

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

```
      [,1]  
[1,] 0.84
```

Cluster fit = 0.89 Pattern fit = 1 RMSR = 0.05

4.2.3.3 Summary

Cronbach's $\alpha = 0.83$ Congeneric reliability $\beta = 0.79$

4.2.4 Perceived Importance of Knowledge About a Potential Partner's Relationship Behavior and Attitudes

4.2.4.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.75	0.76	0.68	0.51	3.1	0.036	4.6	0.56	0.49

lower	alpha	upper	95% confidence boundaries
0.68	0.75	0.82	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se	var.r
Fights.n	0.64	0.64	0.47	0.47	1.8	0.063		NA
FeelingsHurt.n	0.70	0.72	0.56	0.56	2.6	0.049		NA
RightandWrong.n	0.64	0.66	0.49	0.49	1.9	0.059		NA

	med.r
Fights.n	0.47
FeelingsHurt.n	0.56
RightandWrong.n	0.49

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Fights.n	131	0.87	0.83	0.71	0.61	4.5	0.81
FeelingsHurt.n	132	0.78	0.80	0.62	0.54	4.6	0.64
RightandWrong.n	132	0.81	0.83	0.69	0.60	4.7	0.60

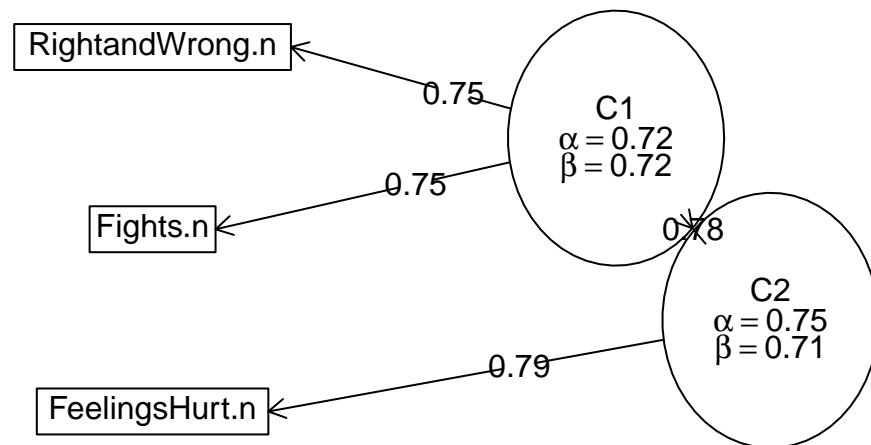
Non missing response frequency for each item

	1	2	3	4	5	miss
Fights.n	0.02	0.02	0.06	0.27	0.64	0.02
FeelingsHurt.n	0.01	0.00	0.04	0.28	0.67	0.01
RightandWrong.n	0.00	0.01	0.05	0.23	0.72	0.01

4.2.4.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.75
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.71
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

```
      [,1]
Fights.n    0.71
FeelingsHurt.n 0.62
RightandWrong.n 0.69
```

With eigenvalues of:

[1] 1.4

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

```
      [,1]
[1,] 0.75
```

Cluster fit = 0.8 Pattern fit = 1 RMSR = 0.06

4.2.4.3 Summary

Cronbach's $\alpha = 0.75$ Congeneric reliability $\beta = 0.71$

4.3 Change

4.3.1 Perceived Knowledge About Relationship Skills

4.3.1.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.84	0.84	0.78	0.64	5.4	0.024	1.3	0.98	0.64

lower	alpha	upper	95% confidence boundaries
0.8	0.84	0.89	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N
Healthy_Rel_Change	0.80	0.80	0.67	0.67	4.0
Communicate_Change	0.77	0.77	0.63	0.63	3.4
ConflictManagement_Change	0.78	0.78	0.64	0.64	3.5

	alpha	se	var.r	med.r
Healthy_Rel_Change	0.035	NA	0.67	
Communicate_Change	0.040	NA	0.63	
ConflictManagement_Change	0.039	NA	0.64	

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Healthy_Rel_Change	128	0.88	0.86	0.75	0.69	1.5	1.1
Communicate_Change	127	0.87	0.88	0.79	0.72	1.2	1.0
ConflictManagement_Change	125	0.89	0.88	0.78	0.72	1.2	1.1

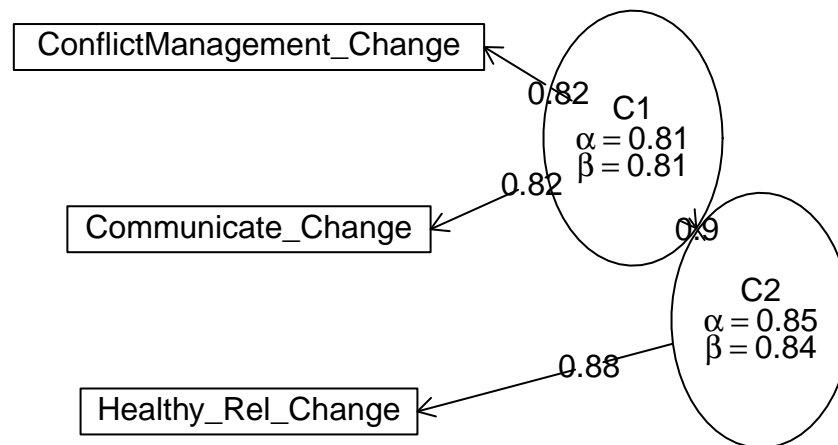
Non missing response frequency for each item

	-2	-1	0	1	2	3	4	miss
Healthy_Rel_Change	0.01	0.00	0.16	0.40	0.29	0.07	0.08	0.01
Communicate_Change	0.01	0.02	0.20	0.43	0.22	0.09	0.02	0.02
ConflictManagement_Change	0.02	0.02	0.23	0.36	0.27	0.06	0.03	0.03

4.3.1.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.85
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.84
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

	[,1]
Healthy_Rel_Change	0.76
Communicate_Change	0.79
ConflictManagement_Change	0.79

With eigenvalues of:

[1] 1.8

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.85

Cluster fit = 0.92 Pattern fit = 1 RMSR = 0.05

4.3.1.3 Summary

Cronbach's $\alpha = 0.84$ Congeneric reliability $\beta = 0.84$

4.3.2 Perceived Knowledge About Partner Selection

4.3.2.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.94	0.94	0.93	0.8	16	0.0086	1.7	1.2	0.79

lower alpha upper 95% confidence boundaries
0.92 0.94 0.96

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
RightPartner_Change	0.91	0.91	0.88	0.78	10	0.013	
LearnPartner_Change	0.92	0.92	0.88	0.79	11	0.012	
PaceRelationship_Change	0.93	0.93	0.90	0.81	13	0.011	
WarningSigns_Change	0.93	0.93	0.91	0.82	14	0.011	

	var.r	med.r
RightPartner_Change	0.00075	0.78
LearnPartner_Change	0.00029	0.78
PaceRelationship_Change	0.00365	0.81
WarningSigns_Change	0.00209	0.80

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
RightPartner_Change	127	0.94	0.94	0.92	0.89	1.6	1.3
LearnPartner_Change	128	0.93	0.93	0.91	0.87	1.8	1.2
PaceRelationship_Change	129	0.91	0.91	0.87	0.84	1.8	1.3
WarningSigns_Change	128	0.90	0.91	0.86	0.83	1.6	1.3

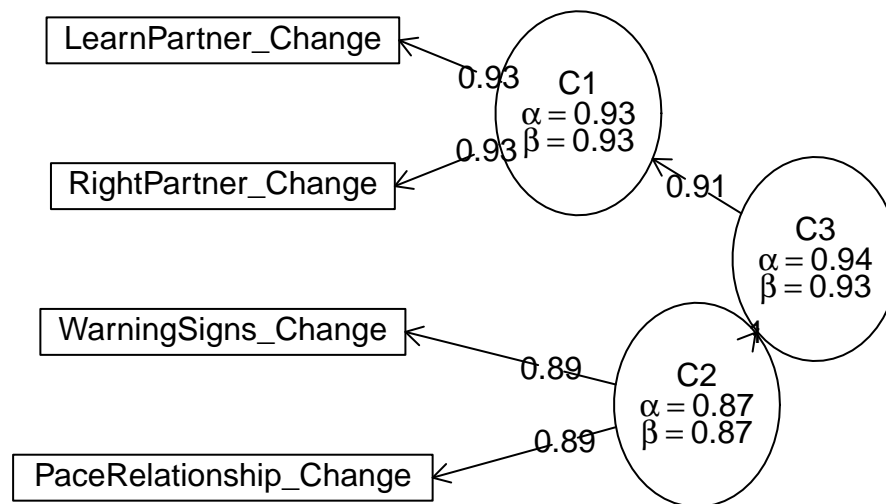
Non missing response frequency for each item

	-3	-2	-1	0	1	2	3	4	miss
RightPartner_Change	0.00	0.01	0.02	0.16	0.29	0.30	0.13	0.10	0.02
LearnPartner_Change	0.00	0.01	0.01	0.12	0.30	0.33	0.12	0.12	0.01
PaceRelationship_Change	0.00	0.02	0.01	0.10	0.33	0.27	0.16	0.11	0.00
WarningSigns_Change	0.01	0.01	0.01	0.15	0.30	0.27	0.18	0.08	0.01

4.3.2.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.94
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.93
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

	[,1]
RightPartner_Change	0.92
LearnPartner_Change	0.91
PaceRelationship_Change	0.87
WarningSigns_Change	0.85

With eigenvalues of:

[1] 3.1

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.94

Cluster fit = 0.98 Pattern fit = 1 RMSR = 0.03

4.3.2.3 Summary

Cronbach's $\alpha = 0.94$ Congeneric reliability $\beta = 0.93$

4.3.3 Perceived Importance of Knowledge About a Potential Partner's Relationships Patterns

4.3.3.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.89	0.89	0.87	0.67	8.2	0.016	1.2	0.94	0.66

lower	alpha	upper	95% confidence boundaries
0.86	0.89	0.92	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N
LearnedGrowingUp_Change	0.88	0.88	0.84	0.71	7.2
PastRelationships_Change	0.88	0.88	0.84	0.71	7.3
GetAlongParents_Change	0.85	0.85	0.79	0.65	5.6
FriendshipsAreLike_Change	0.84	0.84	0.77	0.63	5.1

	alpha	se	var.r	med.r
LearnedGrowingUp_Change	0.019	0.0056	0.67	
PastRelationships_Change	0.019	0.0058	0.69	
GetAlongParents_Change	0.023	0.0031	0.67	
FriendshipsAreLike_Change	0.025	0.0014	0.64	

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
LearnedGrowingUp_Change	124	0.84	0.84	0.75	0.71	1.2	1.1
PastRelationships_Change	124	0.84	0.84	0.75	0.71	1.3	1.1
GetAlongParents_Change	124	0.89	0.89	0.85	0.80	1.1	1.1
FriendshipsAreLike_Change	124	0.90	0.91	0.88	0.83	1.1	1.1

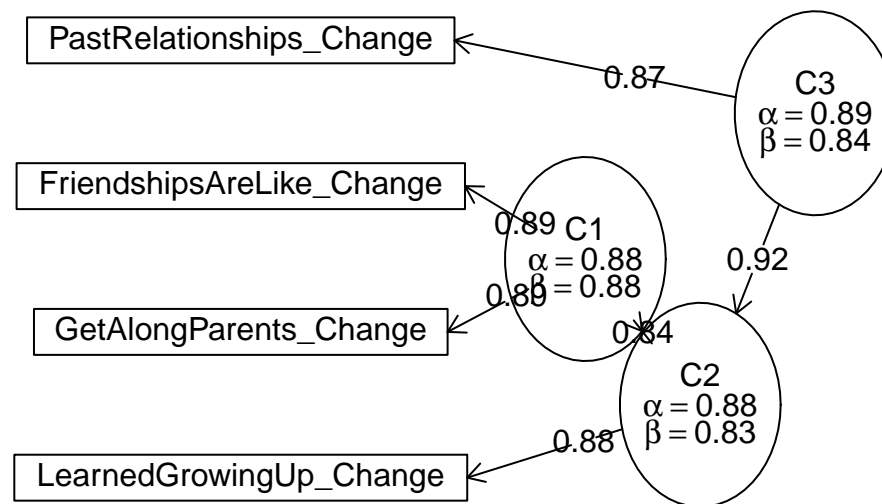
Non missing response frequency for each item

	-2	-1	0	1	2	3	4	miss
LearnedGrowingUp_Change	0.00	0.02	0.27	0.33	0.25	0.11	0.01	0.04
PastRelationships_Change	0.00	0.02	0.23	0.38	0.23	0.11	0.02	0.04
GetAlongParents_Change	0.01	0.02	0.32	0.33	0.22	0.06	0.04	0.04
FriendshipsAreLike_Change	0.00	0.01	0.32	0.32	0.25	0.07	0.02	0.04

4.3.3.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.93
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.9
```

Cluster size:

[1] 4

Item by Cluster Structure matrix:

	[,1]
RightPartner_Before.n	0.90
LearnPartner_Before.n	0.89
PaceRelationship_Before.n	0.85
WarningSigns_Before.n	0.82

With eigenvalues of:

[1] 3

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

	[,1]
[1,]	0.93

Cluster fit = 0.97 Pattern fit = 1 RMSR = 0.04

4.3.3.3 Summary

Cronbach's $\alpha = 0.89$ Congeneric reliability $\beta = 0.84$

4.3.4 Perceived Importance of Knowledge About a Potential Partner's Relationship Behavior and Attitudes

4.3.4.1 Cronbach's alpha (Average split half reliability)

Reliability analysis

Call: psych::alpha(x = .)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
0.82	0.82	0.76	0.61	4.6	0.027	1	0.95	0.61

lower	alpha	upper	95% confidence boundaries
0.76	0.82	0.87	

Reliability if an item is dropped:

	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se
Fights_Change	0.74	0.74	0.59	0.59	2.9	0.046	
FeelingsHurt_Change	0.75	0.77	0.62	0.62	3.3	0.041	
RightandWrong_Change	0.75	0.75	0.61	0.61	3.1	0.044	

	var.r	med.r
Fights_Change	NA	0.59
FeelingsHurt_Change	NA	0.62
RightandWrong_Change	NA	0.61

Item statistics

	n	raw.r	std.r	r.cor	r.drop	mean	sd
Fights_Change	124	0.89	0.87	0.76	0.69	1.00	1.26
FeelingsHurt_Change	124	0.85	0.85	0.73	0.66	1.07	1.05
RightandWrong_Change	125	0.85	0.86	0.75	0.68	0.93	0.97

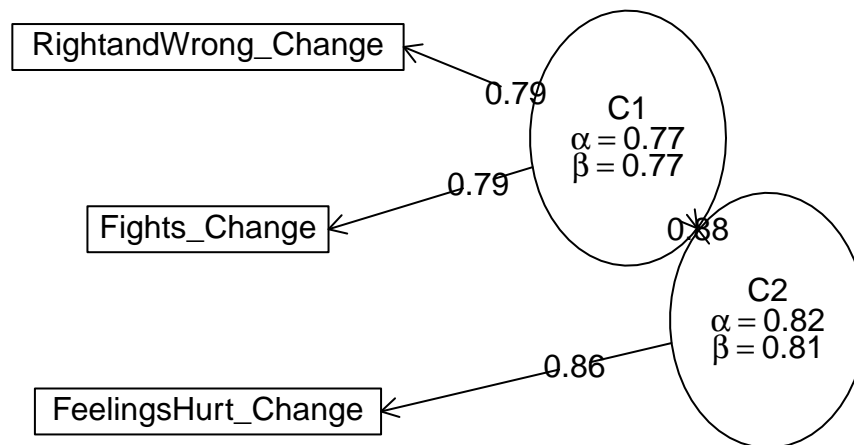
Non missing response frequency for each item

	-4	-2	-1	0	1	2	3	4	miss
Fights_Change	0.01	0.02	0.03	0.28	0.39	0.15	0.10	0.03	0.04
FeelingsHurt_Change	0.00	0.00	0.02	0.31	0.40	0.19	0.06	0.03	0.04
RightandWrong_Change	0.00	0.01	0.01	0.34	0.42	0.16	0.05	0.02	0.03

4.3.4.2 Congeneric reliability (Jöreskog, 1971; Cho, 2016)

- Also called “composite reliability,” “unidimensional omega,” “Raju (1977) coefficient,” and “worst split half reliability”

ICLUST



ICLUST (Item Cluster Analysis)

```
Call: iclust(r.mat = r.mat, nclusters = nclusters, alpha = alpha, beta = beta,
  beta.size = beta.size, alpha.size = alpha.size, correct = correct,
  correct.cluster = correct.cluster, reverse = reverse, beta.min = beta.min,
  output = output, digits = digits, labels = labels, cut = cut,
  n.iterations = n.iterations, title = title, plot = plot,
  weighted = weighted, cor.gen = cor.gen, SMC = SMC, purify = purify,
  diagonal = diagonal)
```

Purified Alpha:

```
[1] 0.82
```

G6* reliability:

```
[1] 1
```

Original Beta:

```
[1] 0.81
```

Cluster size:

[1] 3

Item by Cluster Structure matrix:

```
      [,1]
Fights_Change      0.76
FeelingsHurt_Change 0.73
RightandWrong_Change 0.75
```

With eigenvalues of:

[1] 1.7

Purified scale intercorrelations

reliabilities on diagonal

correlations corrected for attenuation above diagonal:

```
      [,1]
[1,] 0.82
```

Cluster fit = 0.89 Pattern fit = 1 RMSR = 0.05

4.3.4.3 Summary

Cronbach's $\alpha = 0.82$ Congeneric reliability $\beta = 0.81$

5 Exploratory Factor Analysis Treating Data as Categorical (On Full Sample)

5.1 Retrospective-Pre

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

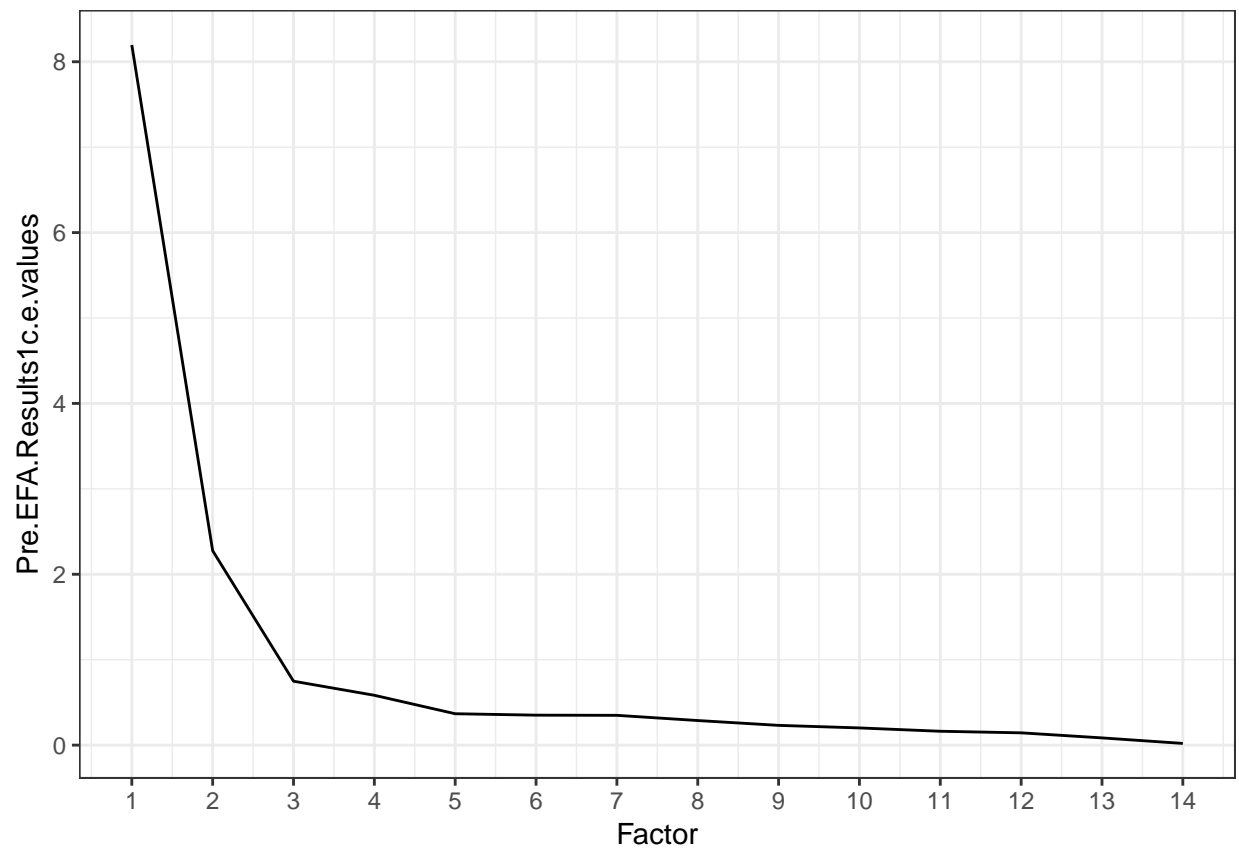
Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

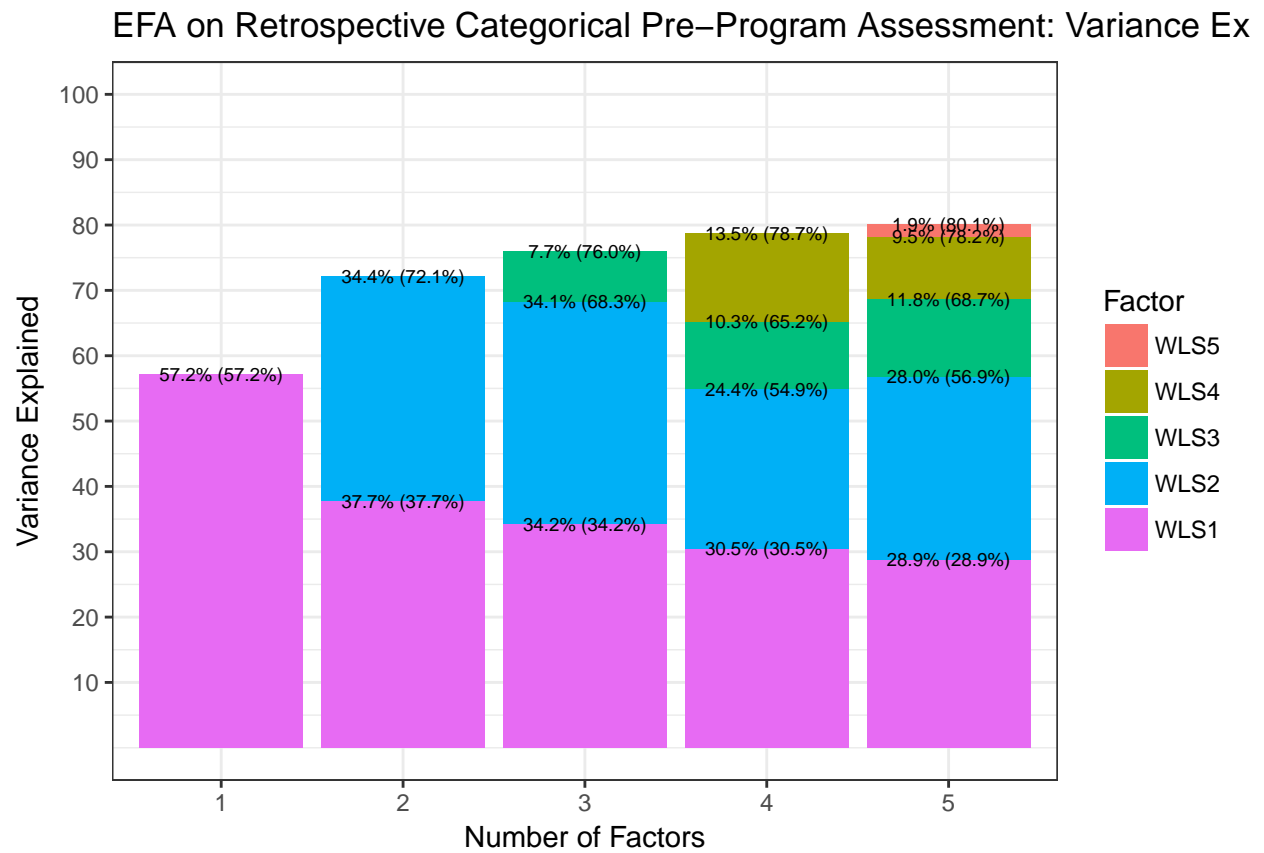
Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

5.1.0.1 Determining Number of Factors

5.1.0.1.1 Screeplot



5.1.0.1.2 Proportion of Variance



5.1.0.1.3 Parallel Analysis

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 37 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 29 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 32 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : A loading greater than abs(1) was detected. Examine the loadings carefully.

The estimated weights for the factor scores are probably incorrect. Try a different factor extraction method.

Warning in fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : An ultra-Heywood case was detected. Examine the results carefully

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 33 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 35 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 34 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 33 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 33 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 30 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 31 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 39 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 42 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 28 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 41 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 26 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 32 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 36 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

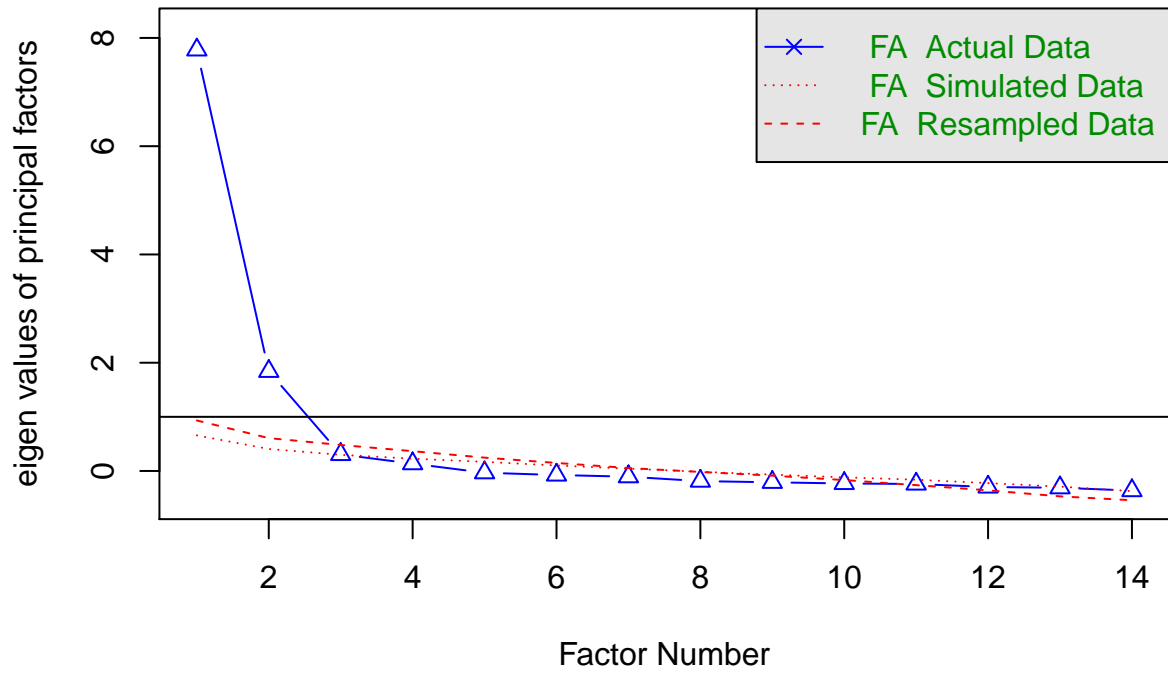
Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 44 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 28 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 22 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Warning in matpLower(x, nvar, gminx, gmaxx, gminy, gmaxy): 33 cells were adjusted for 0 values using the correction for continuity. Examine your data carefully.

Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 3 and the number of components = NA

5.1.0.1.4 EFA Results

One Factor

Factor analysis with Call: `psych::fa(r = Pre_vars.c, nfactors = 1, rotate = "Promax", fm = "wls", cor = "poly")`

Test of the hypothesis that 1 factor is sufficient. The degrees of freedom for the model is 77 and the objective function was 6.86 The number of observations was 188 with Chi Square = 1240.19 with $\text{prob} < 3.3\text{e-}209$

The root mean square of the residuals (RMSA) is 0.15 The df corrected root mean square of the residuals is 0.16

Tucker Lewis Index of factoring reliability = 0.492 RMSEA index = 0.289 and the 10 % confidence intervals are 0.27 0.298 BIC = 836.98

Two Factors

Factor analysis with Call: `psych::fa(r = Pre_vars.c, nfactors = 2, rotate = "Promax", fm = "wls", cor = "poly")`

Test of the hypothesis that 2 factors are sufficient. The degrees of freedom for the model is 64 and the objective function was 3.21 The number of observations was 188 with Chi Square = 578.83 with $\text{prob} < 5.6\text{e-}84$

The root mean square of the residuals (RMSA) is 0.05 The df corrected root mean square of the residuals is 0.06

Tucker Lewis Index of factoring reliability = 0.729 RMSEA index = 0.212 and the 10 % confidence intervals are 0.192 0.223 BIC = 243.7 With factor correlations of WLS1 WLS2 WLS1 1.00 0.58 WLS2 0.58 1.00

Three Factors

Factor analysis with Call: `psych::fa(r = Pre_vars.c, nfactors = 3, rotate = "Promax", fm = "wls", cor = "poly")`

Test of the hypothesis that 3 factors are sufficient. The degrees of freedom for the model is 52 and the objective function was 2.42 The number of observations was 188 with Chi Square = 434.82 with $\text{prob} < 7.5\text{e-}62$

The root mean square of the residuals (RMSA) is 0.03 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.751 RMSEA index = 0.203 and the 10 % confidence intervals are 0.181 0.216 BIC = 162.52 With factor correlations of WLS2 WLS1 WLS3 WLS2 1.00 0.53 0.43 WLS1 0.53 1.00 0.34 WLS3 0.43 0.34 1.00

Four Factors

Factor analysis with Call: `psych::fa(r = Pre_vars.c, nfactors = 4, rotate = "Promax", fm = "wls", cor = "poly")`

Test of the hypothesis that 4 factors are sufficient. The degrees of freedom for the model is 41 and the objective function was 1.77 The number of observations was 188 with Chi Square = 316.43 with $\text{prob} < 3.1\text{e-}44$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.772 RMSEA index = 0.194 and the 10 % confidence intervals are 0.17 0.209 BIC = 101.74 With factor correlations of WLS1 WLS2 WLS4 WLS3 WLS1 1.00 0.55 0.44 0.60 WLS2 0.55 1.00 0.67 0.45 WLS4 0.44 0.67 1.00 0.24 WLS3 0.60 0.45 0.24 1.00

Five Factors

Factor analysis with Call: `psych::fa(r = Pre_vars.c, nfactors = 5, rotate = "Promax", fm = "wls", cor = "poly")`

Test of the hypothesis that 5 factors are sufficient. The degrees of freedom for the model is 31 and the objective function was 1.35 The number of observations was 188 with Chi Square = 240.18 with $\text{prob} < 3.4\text{e-}34$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.77 RMSEA index = 0.195 and the 10 % confidence intervals are 0.168 0.213 BIC = 77.85 With factor correlations of WLS1 WLS2 WLS3 WLS4 WLS5

WLS1	1.00	0.56	0.69	0.46	-0.24
WLS2	0.56	1.00	0.50	0.54	-0.07
WLS3	0.69	0.50	1.00	0.26	-0.20
WLS4	0.46	0.54	0.26	1.00	-0.03
WLS5	-0.24	-0.07	-0.20	-0.03	1.00

5.1.0.1.5 Comparing Loadings

One Factor

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results1c

Table 41: fa2latex
A factor analysis table from the psych package in R

Variable	WLS1	WLS1.1	WLS1.2	com
Healthy_Rel_Before.3n	0.82	0.67	0.33	1
Communicate_Before.3n	0.72	0.52	0.48	1
ConflictManagement_Before.3n	0.78	0.61	0.39	1
RightPartner_Before.3n	0.77	0.59	0.41	1
LearnPartner_Before.3n	0.84	0.71	0.29	1
PaceRelationship_Before.3n	0.82	0.68	0.32	1
WarningSigns_Before.3n	0.78	0.60	0.40	1
LearnedGrowingUp_Before.3n	0.77	0.59	0.41	1
PastRelationships_Before.3n	0.68	0.47	0.53	1
GetAlongParents_Before.3n	0.75	0.57	0.43	1
FriendshipsAreLike_Before.3n	0.80	0.63	0.37	1
Fights_Before.3n	0.64	0.41	0.59	1
FeelingsHurt_Before.3n	0.69	0.48	0.52	1
RightandWrong_Before.3n	0.70	0.49	0.51	1
SS loadings	8.01			

Two Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results2c

Table 42: fa2latex
A factor analysis table from the psych package in R

Variable	WLS1	WLS2	h2	u2	com
Healthy_Rel_Before.3n	0.75	0.16	0.73	0.27	1.08
Communicate_Before.3n	0.81	-0.01	0.65	0.35	1.00
ConflictManagement_Before.3n	0.85	0.02	0.74	0.26	1.00
RightPartner_Before.3n	0.98	-0.14	0.83	0.17	1.04
LearnPartner_Before.3n	0.90	0.04	0.85	0.15	1.00
PaceRelationship_Before.3n	0.87	0.05	0.80	0.20	1.01
WarningSigns_Before.3n	0.86	0.00	0.74	0.26	1.00
LearnedGrowingUp_Before.3n	0.08	0.80	0.72	0.28	1.02
PastRelationships_Before.3n	-0.08	0.86	0.67	0.33	1.02
GetAlongParents_Before.3n	-0.02	0.89	0.76	0.24	1.00
FriendshipsAreLike_Before.3n	0.03	0.88	0.81	0.19	1.00
Fights_Before.3n	0.11	0.62	0.47	0.53	1.06
FeelingsHurt_Before.3n	-0.02	0.81	0.64	0.36	1.00
RightandWrong_Before.3n	-0.06	0.86	0.68	0.32	1.01
SS loadings	5.28	4.81			
WLS1	1.00	0.58			
WLS2	0.58	1.00			

Three Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results3c

Table 43: fa2latex						
A factor analysis table from the psych package in R						
Variable	WLS2	WLS1	WLS3	h2	u2	com
Healthy_Rel_Before.3n	0.13	0.65	0.26	0.74	0.26	1.41
Communicate_Before.3n	-0.08	0.64	0.44	0.71	0.29	1.80
ConflictManagement_Before.3n	-0.06	0.65	0.49	0.82	0.18	1.88
RightPartner_Before.3n	-0.12	0.92	0.14	0.83	0.17	1.09
LearnPartner_Before.3n	0.07	0.88	0.02	0.87	0.13	1.01
PaceRelationship_Before.3n	0.13	0.92	-0.16	0.90	0.10	1.10
WarningSigns_Before.3n	0.04	0.85	0.01	0.76	0.24	1.00
LearnedGrowingUp_Before.3n	0.73	-0.02	0.28	0.77	0.23	1.28
PastRelationships_Before.3n	0.92	0.03	-0.26	0.73	0.27	1.16
GetAlongParents_Before.3n	0.89	-0.01	-0.03	0.76	0.24	1.00
FriendshipsAreLike_Before.3n	0.94	0.14	-0.28	0.88	0.12	1.22
Fights_Before.3n	0.56	0.01	0.27	0.52	0.48	1.43
FeelingsHurt_Before.3n	0.78	-0.06	0.12	0.65	0.35	1.05
RightandWrong_Before.3n	0.83	-0.08	0.08	0.69	0.31	1.04
SS loadings	4.78	4.79	1.07			
WLS2	1.00	0.53	0.43			
WLS1	0.53	1.00	0.34			
WLS3	0.43	0.34	1.00			

Four Factors

% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results4c

Table 44: fa2latex							
A factor analysis table from the psych package in R							
Variable	WLS1	WLS2	WLS4	WLS3	h2	u2	com
Healthy_Rel_Before.3n	0.51	0.16	0.02	0.32	0.74	0.26	1.89
Communicate_Before.3n	0.38	0.02	-0.01	0.57	0.74	0.26	1.73
ConflictManagement_Before.3n	0.32	-0.01	0.06	0.70	0.89	0.11	1.40
RightPartner_Before.3n	0.88	-0.04	-0.09	0.15	0.84	0.16	1.09
LearnPartner_Before.3n	0.93	0.10	-0.05	-0.04	0.89	0.11	1.03
PaceRelationship_Before.3n	0.95	-0.15	0.22	-0.05	0.90	0.10	1.17
WarningSigns_Before.3n	0.88	0.03	-0.03	-0.02	0.78	0.22	1.01
LearnedGrowingUp_Before.3n	-0.04	0.86	0.01	0.10	0.79	0.21	1.03
PastRelationships_Before.3n	0.12	0.43	0.50	-0.21	0.73	0.27	2.46
GetAlongParents_Before.3n	-0.16	0.31	0.66	0.24	0.84	0.16	1.86
FriendshipsAreLike_Before.3n	0.09	0.17	0.79	0.02	0.93	0.07	1.12
Fights_Before.3n	0.07	0.85	-0.19	-0.03	0.59	0.41	1.12
FeelingsHurt_Before.3n	-0.03	0.74	0.13	-0.01	0.66	0.34	1.06
RightandWrong_Before.3n	-0.03	0.78	0.14	-0.07	0.71	0.29	1.08
SS loadings	4.27	3.41	1.89	1.44			
WLS1	1.00	0.55	0.44	0.60			
WLS2	0.55	1.00	0.67	0.45			
WLS4	0.44	0.67	1.00	0.24			
WLS3	0.60	0.45	0.24	1.00			

Five Factors

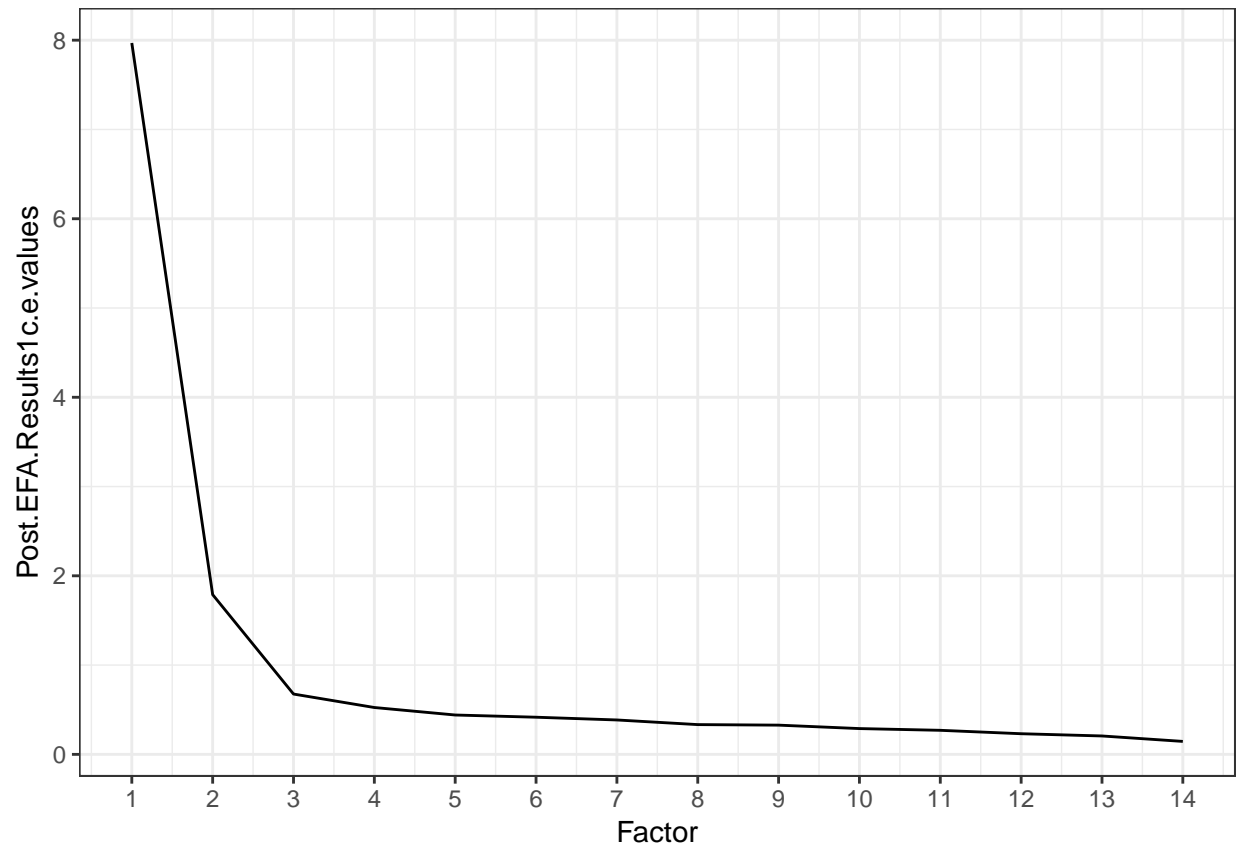
% Called in the psych package psych::fa2latex % Called in the psych package Pre.EFA.Results5c

Table 45: fa2latex								
A factor analysis table from the psych package in R								
Variable	WLS1	WLS2	WLS3	WLS4	WLS5	h2	u2	com
Healthy_Rel_Before.3n	0.33	0.13	0.42	0.13	-0.16	0.78	0.22	2.69
Communicate_Before.3n	0.32	0.01	0.63	-0.04	0.07	0.74	0.26	1.53
ConflictManagement_Before.3n	0.23	0.00	0.78	0.03	0.07	0.89	0.11	1.19
RightPartner_Before.3n	0.95	-0.05	0.12	-0.15	0.09	0.86	0.14	1.11
LearnPartner_Before.3n	0.99	0.09	-0.07	-0.08	0.04	0.91	0.09	1.05
PaceRelationship_Before.3n	0.89	-0.10	-0.03	0.23	-0.04	0.90	0.10	1.18
WarningSigns_Before.3n	0.83	0.02	0.00	0.02	-0.09	0.78	0.22	1.02
LearnedGrowingUp_Before.3n	-0.11	0.86	0.14	0.02	-0.05	0.79	0.21	1.10
PastRelationships_Before.3n	0.07	0.57	-0.21	0.44	0.04	0.73	0.27	2.22
GetAlongParents_Before.3n	0.01	0.54	0.16	0.34	0.48	0.91	0.09	2.89
FriendshipsAreLike_Before.3n	-0.01	0.38	0.06	0.70	0.10	0.95	0.05	1.62
Fights_Before.3n	0.08	0.81	-0.03	-0.18	-0.04	0.59	0.41	1.13
FeelingsHurt_Before.3n	-0.03	0.79	-0.01	0.08	0.05	0.66	0.34	1.03
RightandWrong_Before.3n	0.02	0.84	-0.09	0.05	0.10	0.71	0.29	1.06
SS loadings	4.04	3.92	1.66	1.33	0.26			
WLS1	1.00	0.56	0.69	0.46	-0.24			
WLS2	0.56	1.00	0.50	0.54	-0.07			
WLS3	0.69	0.50	1.00	0.26	-0.20			
WLS4	0.46	0.54	0.26	1.00	-0.03			
WLS5	-0.24	-0.07	-0.20	-0.03	1.00			

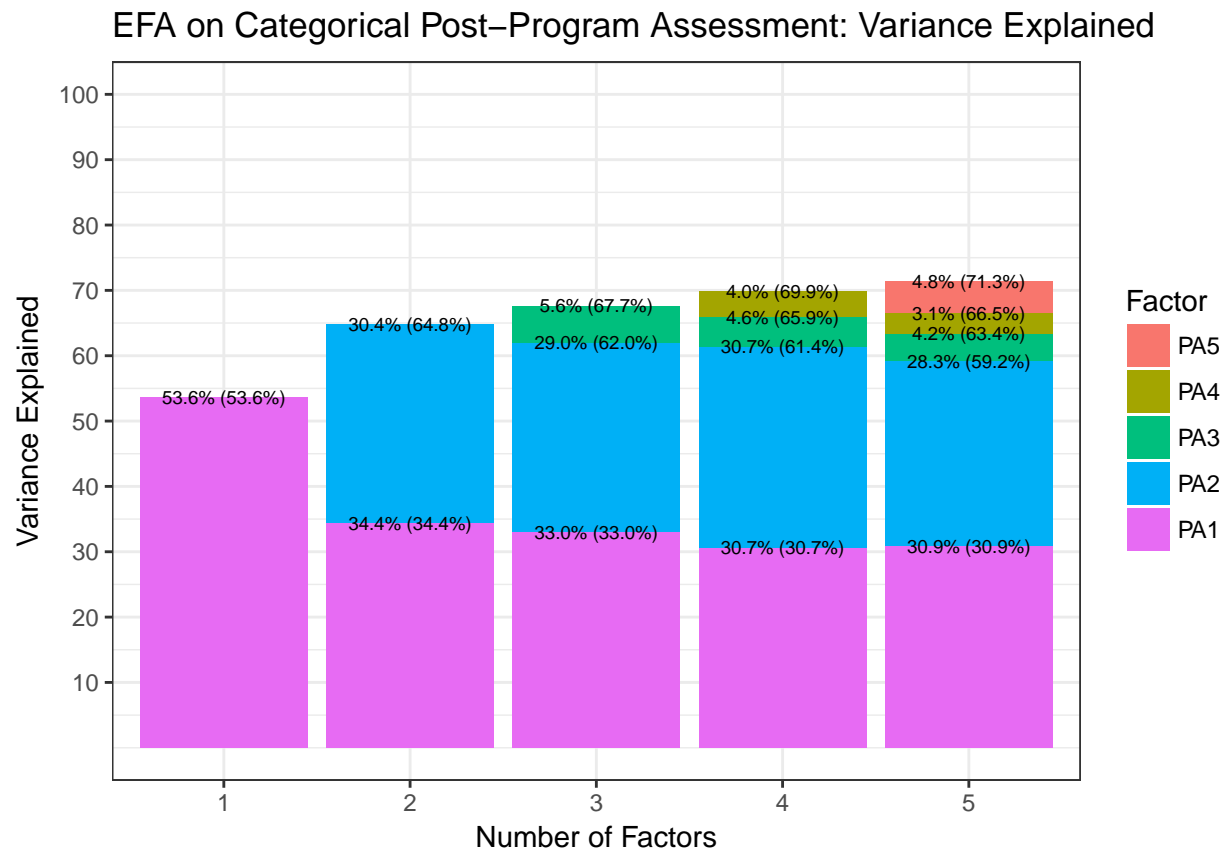
5.2 Post

5.2.0.1 Determining Number of Factors

5.2.0.1.1 Screeplot



5.2.0.1.2 Proportion of Variance



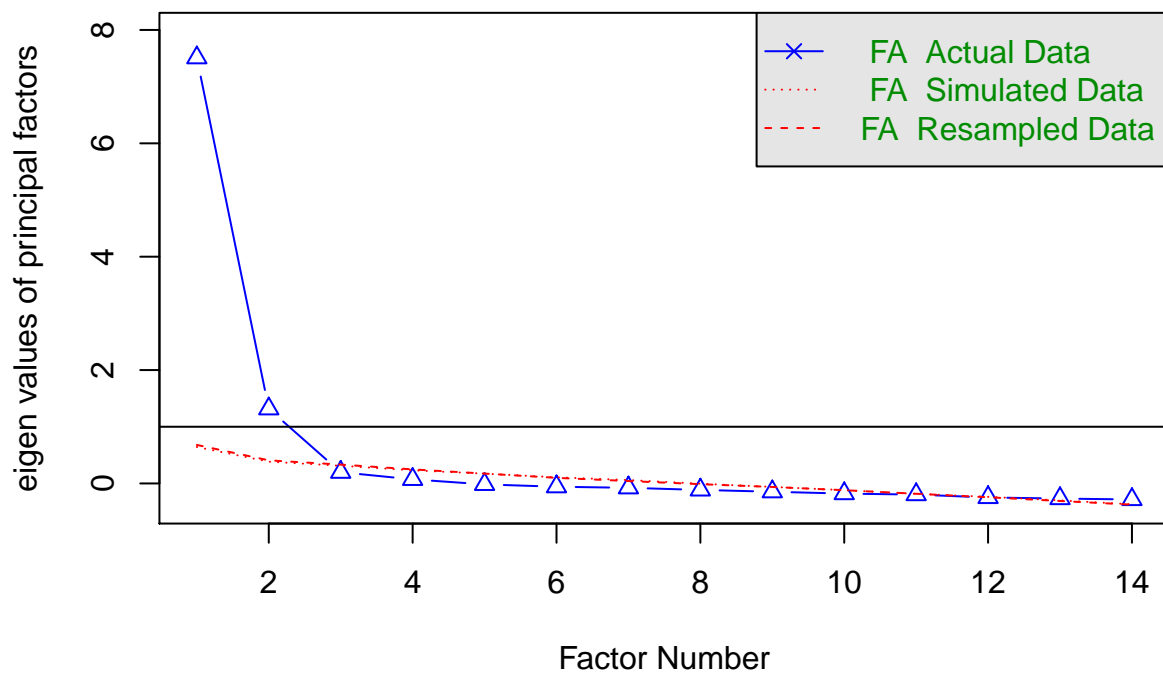
5.2.0.1.3 Parallel Analysis

Warning in fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : A loading greater than abs(1) was detected. Examine the loadings carefully.

The estimated weights for the factor scores are probably incorrect. Try a different factor ex

Warning in fac(r = r, nfactors = nfactors, n.obs = n.obs, rotate = rotate, : An ultra-Heywood case was detected. Examine the results carefully

Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 2 and the number of components = NA

5.2.0.1.4 EFA Results

One Factor

Factor analysis with Call: `psych::fa(r = Post_vars.c, nfactors = 1, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 1 factor is sufficient. The degrees of freedom for the model is 77 and the objective function was 2.77 The number of observations was 188 with Chi Square = 501.18 with $\text{prob} < 1.9\text{e-}63$

The root mean square of the residuals (RMSA) is 0.11 The df corrected root mean square of the residuals is 0.12

Tucker Lewis Index of factoring reliability = 0.73 RMSEA index = 0.175 and the 10 % confidence intervals are 0.157 0.186 BIC = 97.97

Two Factors

Factor analysis with Call: `psych::fa(r = Post_vars.c, nfactors = 2, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 2 factors are sufficient. The degrees of freedom for the model is 64 and the objective function was 0.77 The number of observations was 188 with Chi Square = 139.04 with $\text{prob} < 1.8\text{e-}07$

The root mean square of the residuals (RMSA) is 0.03 The df corrected root mean square of the residuals is 0.04

Tucker Lewis Index of factoring reliability = 0.942 RMSEA index = 0.082 and the 10 % confidence intervals are 0.061 0.097 BIC = -196.09 With factor correlations of PA1 PA2 PA1 1.00 0.66 PA2 0.66 1.00

Three Factors

Factor analysis with Call: `psych::fa(r = Post_vars.c, nfactors = 3, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 3 factors are sufficient. The degrees of freedom for the model is 52 and the objective function was 0.5 The number of observations was 188 with Chi Square = 89.9 with $\text{prob} < 0.00086$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.964 RMSEA index = 0.065 and the 10 % confidence intervals are 0.04 0.084 BIC = -182.4 With factor correlations of PA1 PA2 PA3 PA1 1.00 0.64 0.19 PA2 0.64 1.00 0.27 PA3 0.19 0.27 1.00

Four Factors

Factor analysis with Call: `psych::fa(r = Post_vars.c, nfactors = 4, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 4 factors are sufficient. The degrees of freedom for the model is 41 and the objective function was 0.3 The number of observations was 188 with Chi Square = 54.3 with $\text{prob} < 0.08$

The root mean square of the residuals (RMSA) is 0.02 The df corrected root mean square of the residuals is 0.03

Tucker Lewis Index of factoring reliability = 0.984 RMSEA index = 0.045 and the 10 % confidence intervals are 0 0.069 BIC = -160.4 With factor correlations of PA1 PA2 PA3 PA4 PA1 1.00 0.57 -0.04 0.04 PA2 0.57 1.00 0.28 0.36 PA3 -0.04 0.28 1.00 0.57 PA4 0.04 0.36 0.57 1.00

Five Factors

Factor analysis with Call: `psych::fa(r = Post_vars.c, nfactors = 5, rotate = "Promax", fm = "pa", cor = "cor")`

Test of the hypothesis that 5 factors are sufficient. The degrees of freedom for the model is 31 and the objective function was 0.22 The number of observations was 188 with Chi Square = 39.05 with $\text{prob} < 0.15$

The root mean square of the residuals (RMSA) is 0.01 The df corrected root mean square of the residuals is 0.02

Tucker Lewis Index of factoring reliability = 0.987 RMSEA index = 0.042 and the 10 % confidence intervals are 0 0.07 BIC = -123.28 With factor correlations of PA1 PA2 PA5 PA3 PA4 PA1 1.00 0.60 0.20 0.22 0.13 PA2 0.60 1.00 0.32 0.27 0.17 PA5 0.20 0.32 1.00 0.45 0.27 PA3 0.22 0.27 0.45 1.00 0.28 PA4 0.13 0.17 0.27 0.28 1.00

5.2.0.1.5 Comparing Loadings

One Factor

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results1c

Table 46: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA1.1	PA1.2	com
Healthy_Rel.3n	0.71	0.50	0.50	1
Communicate.3n	0.76	0.58	0.42	1
ConflictManagement.3n	0.72	0.51	0.49	1
RightPartner.3n	0.68	0.46	0.54	1
LearnPartner.3n	0.81	0.65	0.35	1
PaceRelationship.3n	0.77	0.59	0.41	1
WarningSigns.3n	0.79	0.62	0.38	1
LearnedGrowingUp.3n	0.69	0.48	0.52	1
PastRelationships.3n	0.73	0.53	0.47	1
GetAlongParents.3n	0.71	0.51	0.49	1
FriendshipsAreLike.3n	0.70	0.49	0.51	1
Fights.3n	0.70	0.50	0.50	1
FeelingsHurt.3n	0.74	0.54	0.46	1
RightandWrong.3n	0.74	0.55	0.45	1
SS loadings	7.51			

Two Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results2c

Table 47: fa2latex
A factor analysis table from the psych package in R

Variable	PA1	PA2	h2	u2	com
Healthy_Rel.3n	0.80	-0.03	0.61	0.39	1.00
Communicate.3n	0.81	0.02	0.68	0.32	1.00
ConflictManagement.3n	0.78	0.00	0.61	0.39	1.00
RightPartner.3n	0.86	-0.12	0.62	0.38	1.04
LearnPartner.3n	0.81	0.07	0.74	0.26	1.01
PaceRelationship.3n	0.72	0.11	0.64	0.36	1.05
WarningSigns.3n	0.89	-0.03	0.76	0.24	1.00
LearnedGrowingUp.3n	-0.01	0.78	0.61	0.39	1.00
PastRelationships.3n	-0.05	0.88	0.71	0.29	1.01
GetAlongParents.3n	0.16	0.63	0.56	0.44	1.12
FriendshipsAreLike.3n	-0.14	0.94	0.74	0.26	1.04
Fights.3n	0.09	0.70	0.57	0.43	1.03
FeelingsHurt.3n	0.23	0.58	0.57	0.43	1.30
RightandWrong.3n	0.02	0.81	0.68	0.32	1.00
SS loadings	4.81	4.26			
PA1	1.00	0.66			
PA2	0.66	1.00			

Three Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results3c

Table 48: fa2latex						
A factor analysis table from the psych package in R						
Variable	PA1	PA2	PA3	h2	u2	com
Healthy_Rel.3n	0.78	0.01	-0.01	0.62	0.38	1.00
Communicate.3n	0.78	0.00	0.16	0.68	0.32	1.09
ConflictManagement.3n	0.77	0.05	-0.05	0.63	0.37	1.02
RightPartner.3n	0.87	-0.05	-0.13	0.68	0.32	1.05
LearnPartner.3n	0.78	0.01	0.25	0.75	0.25	1.20
PaceRelationship.3n	0.69	0.10	0.12	0.63	0.37	1.11
WarningSigns.3n	0.86	-0.11	0.31	0.81	0.19	1.29
LearnedGrowingUp.3n	0.00	0.78	0.02	0.62	0.38	1.00
PastRelationships.3n	-0.05	0.82	0.16	0.71	0.29	1.08
GetAlongParents.3n	0.16	0.72	-0.16	0.64	0.36	1.19
FriendshipsAreLike.3n	-0.14	0.96	-0.02	0.76	0.24	1.04
Fights.3n	0.05	0.58	0.38	0.65	0.35	1.74
FeelingsHurt.3n	0.20	0.48	0.32	0.61	0.39	2.14
RightandWrong.3n	0.02	0.74	0.17	0.67	0.33	1.11
SS loadings	4.62	4.06	0.79			
PA1	1.00	0.64	0.19			
PA2	0.64	1.00	0.27			
PA3	0.19	0.27	1.00			

Four Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results4c

Table 49: fa2latex							
A factor analysis table from the psych package in R							
Variable	PA1	PA2	PA3	PA4	h2	u2	com
Healthy_Rel.3n	0.76	0.02	0.13	0.04	0.62	0.38	1.06
Communicate.3n	0.77	-0.06	-0.05	0.52	0.80	0.20	1.79
ConflictManagement.3n	0.76	0.03	-0.08	0.22	0.65	0.35	1.20
RightPartner.3n	0.85	-0.06	0.04	0.03	0.67	0.33	1.02
LearnPartner.3n	0.74	0.05	0.28	0.16	0.74	0.26	1.39
PaceRelationship.3n	0.67	0.14	0.29	-0.04	0.65	0.35	1.46
WarningSigns.3n	0.84	-0.07	0.60	-0.04	0.90	0.10	1.83
LearnedGrowingUp.3n	-0.01	0.79	-0.25	0.20	0.67	0.33	1.34
PastRelationships.3n	-0.05	0.86	0.06	-0.02	0.71	0.29	1.02
GetAlongParents.3n	0.17	0.76	-0.06	-0.21	0.67	0.33	1.28
FriendshipsAreLike.3n	-0.12	0.99	-0.06	-0.12	0.76	0.24	1.07
Fights.3n	0.03	0.63	0.18	0.17	0.65	0.35	1.31
FeelingsHurt.3n	0.18	0.52	0.14	0.21	0.61	0.39	1.72
RightandWrong.3n	0.01	0.79	0.12	-0.04	0.68	0.32	1.05
SS loadings	4.29	4.3	0.64	0.56			
PA1	1.00	0.57	-0.04	0.04			
PA2	0.57	1.00	0.28	0.36			
PA3	-0.04	0.28	1.00	0.57			
PA4	0.04	0.36	0.57	1.00			

Five Factors

% Called in the psych package psych::fa2latex % Called in the psych package Post.EFA.Results5c

Table 50: fa2latex								
A factor analysis table from the psych package in R								
Variable	PA1	PA2	PA5	PA3	PA4	h2	u2	com
Healthy_Rel.3n	0.77	0.03	0.05	0.01	-0.04	0.63	0.37	1.02
Communicate.3n	0.77	-0.07	0.01	0.19	0.28	0.78	0.22	1.42
ConflictManagement.3n	0.78	0.02	-0.09	0.03	0.14	0.67	0.33	1.10
RightPartner.3n	0.86	-0.04	0.02	-0.09	0.00	0.68	0.32	1.03
LearnPartner.3n	0.69	0.01	0.39	-0.03	0.13	0.80	0.20	1.69
PaceRelationship.3n	0.64	0.13	0.25	-0.02	-0.06	0.65	0.35	1.41
WarningSigns.3n	0.77	-0.07	0.49	0.05	-0.12	0.88	0.12	1.80
LearnedGrowingUp.3n	-0.01	0.74	-0.09	-0.02	0.38	0.72	0.28	1.54
PastRelationships.3n	-0.05	0.80	0.03	0.13	0.06	0.70	0.30	1.08
GetAlongParents.3n	0.18	0.73	0.00	-0.18	0.03	0.67	0.33	1.25
FriendshipsAreLike.3n	-0.12	0.93	-0.01	-0.03	0.08	0.76	0.24	1.05
Fights.3n	0.03	0.57	0.03	0.43	0.01	0.69	0.31	1.88
FeelingsHurt.3n	0.15	0.46	0.15	0.20	0.16	0.61	0.39	2.19
RightandWrong.3n	0.02	0.76	-0.05	0.29	-0.11	0.74	0.26	1.34
SS loadings	4.33	3.96	0.67	0.59	0.44			
PA1	1.00	0.60	0.20	0.22	0.13			
PA2	0.60	1.00	0.32	0.27	0.17			
PA5	0.20	0.32	1.00	0.45	0.27			
PA3	0.22	0.27	0.45	1.00	0.28			
PA4	0.13	0.17	0.27	0.28	1.00			

6 Confirmatory Factor Analysis (On Analytic Sample)

6.1 Categorical Retrospective Pre

6.1.1 Model Fit

lavaan (0.6-1) converged normally after 34 iterations

	Used	Total
Number of observations	115	134
Estimator	DWLS	Robust
Model Fit Test Statistic	45.149	84.208
Degrees of freedom	71	71
P-value (Chi-square)	0.993	0.135
Scaling correction factor		0.798
Shift parameter		27.622
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	5549.287	2112.206
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.993
Tucker-Lewis Index (TLI)	1.006	0.992
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.040	
90 Percent Confidence Interval	0.000	0.000	0.071
P-value RMSEA <= 0.05	1.000	0.666	
Robust RMSEA		NA	
90 Percent Confidence Interval		0.000	NA

Standardized Root Mean Square Residual:

SRMR	0.064	0.064
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Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)
Healthy_Rel_Skills_Before =~				
Hlthy_Rl_Bfr.3	1.000			
Commnct_Bfr.3n	0.820	0.084	9.767	0.000
CnflctMngm_B.3	0.927	0.069	13.419	0.000
Partner_Selection_Before =~				
RghtPrtnr_Bf.3	1.000			
LrnPrtnr_Bfr.3	1.103	0.065	16.963	0.000
PcRltnshp_Bf.3	1.064	0.074	14.345	0.000
WrngngSgns_Bf.3	1.011	0.075	13.498	0.000
Past_Rel_Behav_Before =~				
LrndGrwngU_B.3	1.000			
PstRltnshp_B.3	0.883	0.060	14.721	0.000
GtAlngPrnt_B.3	1.002	0.054	18.698	0.000
FrndshpsAL_B.3	1.054	0.055	19.173	0.000
Rel_Behav_Attit_Before =~				
Fights_Befr.3n	1.000			
FlngsHrt_Bfr.3	1.134	0.092	12.308	0.000
RghtndWrng_B.3	1.092	0.101	10.769	0.000
Std.lv				
Std.all				
	0.935	0.935		
	0.767	0.767		
	0.866	0.866		
	0.871	0.871		
	0.961	0.961		
	0.927	0.927		
	0.880	0.880		
	0.872	0.872		
	0.770	0.770		
	0.873	0.873		
	0.919	0.919		
	0.726	0.726		
	0.823	0.823		
	0.793	0.793		

Covariances:

	Estimate	Std.Err	z-value	P(> z)
Healthy_Rel_Skills_Before ~~				

Prtnr_Slctn_Bf	0.651	0.064	10.199	0.000
Pst_Rl_Bhv_Bfr	0.493	0.070	6.996	0.000
Rl_Bhv_Attd_Bf	0.438	0.073	6.021	0.000
Partner_Selection_Before ~~				
Pst_Rl_Bhv_Bfr	0.433	0.069	6.293	0.000
Rl_Bhv_Attd_Bf	0.351	0.076	4.636	0.000
Past_Rel_Behav_Before ~~				
Rl_Bhv_Attd_Bf	0.599	0.068	8.836	0.000
Std.lv Std.all				
0.799 0.799				
0.605 0.605				
0.645 0.645				
0.570 0.570				
0.555 0.555				
0.947 0.947				

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrngSgns_Bf.3	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.Fights_Bfr.3n	0.000				0.000	0.000
.FlngsHrt_Bfr.3	0.000				0.000	0.000
.RghtndWrng_B.3	0.000				0.000	0.000
Hlthy_Rl_Skl_B	0.000				0.000	0.000
Prtnr_Slctn_Bf	0.000				0.000	0.000
Pst_Rl_Bhv_Bfr	0.000				0.000	0.000
Rl_Bhv_Attd_Bf	0.000				0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_B.3 1	0.345	0.120	2.872	0.004	0.345	0.345
Hlthy_Rl_B.3 2	1.712	0.207	8.262	0.000	1.712	1.712
Cmmnct_Bfr.3 1	0.209	0.118	1.763	0.078	0.209	0.209
Cmmnct_Bfr.3 2	1.624	0.195	8.320	0.000	1.624	1.624
CnflctMn_B.3 1	0.345	0.120	2.872	0.004	0.345	0.345
CnflctMn_B.3 2	1.712	0.207	8.262	0.000	1.712	1.712

RghtPrtn_B.3 1	0.723	0.129	5.595	0.000	0.723	0.723
RghtPrtn_B.3 2	2.378	0.369	6.451	0.000	2.378	2.378
LrnPrtnr_B.3 1	0.487	0.123	3.975	0.000	0.487	0.487
LrnPrtnr_B.3 2	2.111	0.285	7.411	0.000	2.111	2.111
PcRltnsh_B.3 1	0.588	0.125	4.702	0.000	0.588	0.588
PcRltnsh_B.3 2	1.942	0.246	7.877	0.000	1.942	1.942
WrnngSgn_B.3 1	0.368	0.120	3.057	0.002	0.368	0.368
WrnngSgn_B.3 2	1.942	0.246	7.877	0.000	1.942	1.942
LrndGrwU_B.3 1	0.120	0.118	1.021	0.307	0.120	0.120
LrndGrwU_B.3 2	1.257	0.158	7.948	0.000	1.257	1.257
PstRltns_B.3 1	0.098	0.118	0.835	0.403	0.098	0.098
PstRltns_B.3 2	1.124	0.149	7.558	0.000	1.124	1.124
GtAlngPr_B.3 1	0.055	0.117	0.464	0.643	0.055	0.055
GtAlngPr_B.3 2	0.811	0.133	6.118	0.000	0.811	0.811
FrndshAL_B.3 1	0.055	0.117	0.464	0.643	0.055	0.055
FrndshAL_B.3 2	0.905	0.137	6.626	0.000	0.905	0.905
Fghts_Bfr.3n 1	-0.120	0.118	-1.021	0.307	-0.120	-0.120
Fghts_Bfr.3n 2	0.873	0.135	6.459	0.000	0.873	0.873
FlngsHrt_B.3 1	-0.209	0.118	-1.763	0.078	-0.209	-0.209
FlngsHrt_B.3 2	1.046	0.144	7.264	0.000	1.046	1.046
RghtndWr_B.3 1	-0.368	0.120	-3.057	0.002	-0.368	-0.368
RghtndWr_B.3 2	0.842	0.134	6.289	0.000	0.842	0.842

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.3	0.126				0.126	0.126
.Commnct_Bfr.3n	0.412				0.412	0.412
.CnflctMngm_B.3	0.250				0.250	0.250
.RghtPrtnr_Bf.3	0.241				0.241	0.241
.LrnPrtnr_Bfr.3	0.077				0.077	0.077
.PcRltnshp_Bf.3	0.141				0.141	0.141
.WrnngSgns_Bf.3	0.225				0.225	0.225
.LrndGrwngU_B.3	0.239				0.239	0.239
.PstRltnshp_B.3	0.408				0.408	0.408
.GtAlngPrnt_B.3	0.237				0.237	0.237
.FrndshpsAL_B.3	0.155				0.155	0.155
.Fights_Befr.3n	0.473				0.473	0.473
.FlngsHrt_Bfr.3	0.322				0.322	0.322
.RghtndWrng_B.3	0.372				0.372	0.372
Hlthy_Rl_Skl_B	0.874	0.084	10.350	0.000	1.000	1.000
Prtnr_Slctn_Bf	0.759	0.074	10.233	0.000	1.000	1.000
Pst_Rl_Bhv_Bfr	0.761	0.066	11.519	0.000	1.000	1.000
Rl_Bhv_Attd_Bf	0.527	0.088	5.960	0.000	1.000	1.000

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	1.000				1.000	1.000
Commnct_Bfr.3n	1.000				1.000	1.000

CnflctMngm_B.3	1.000	1.000	1.000
RghtPrtnr_Bf.3	1.000	1.000	1.000
LrnPrtnr_Bfr.3	1.000	1.000	1.000
PcRltnshp_Bf.3	1.000	1.000	1.000
WrngSgns_Bf.3	1.000	1.000	1.000
LrndGrwngU_B.3	1.000	1.000	1.000
PstRltnshp_B.3	1.000	1.000	1.000
GtAlngPrnt_B.3	1.000	1.000	1.000
FrndshpsAL_B.3	1.000	1.000	1.000
Fights_Befr.3n	1.000	1.000	1.000
FlngsHrt_Bfr.3	1.000	1.000	1.000
RghtndWrng_B.3	1.000	1.000	1.000

6.1.2 Modification Indices

```
[1] lhs      op      rhs      mi      epc      sepc.lv  sepc.all sepc.nox
<0 rows> (or 0-length row.names)
```

6.1.3 Two Factor Solution

lavaan (0.6-1) converged normally after 32 iterations

	Used	Total
Number of observations	115	134
Estimator	DWLS	Robust
Model Fit Test Statistic	72.401	107.948
Degrees of freedom	76	76
P-value (Chi-square)	0.596	0.009
Scaling correction factor		0.966
Shift parameter		33.002
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	5549.287	2112.206
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.001	0.981
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.061	
90 Percent Confidence Interval	0.000 0.048	0.031	0.086
P-value RMSEA <= 0.05	0.959	0.244	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.077	0.077
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Skills_and_Partner_Sel =~					
Hlthy_Rl_Bfr.3	1.000				0.865
Commnct_Bfr.3n	0.837	0.082	10.264	0.000	0.724
CnflctMngm_B.3	0.938	0.066	14.256	0.000	0.811
RghtPrtnr_Bf.3	0.993	0.072	13.801	0.000	0.859
LrnPrtnr_Bfr.3	1.066	0.058	18.431	0.000	0.922
PcRltnshp_Bf.3	1.042	0.060	17.311	0.000	0.902
WrnngSgns_Bf.3	0.982	0.065	15.220	0.000	0.849
Behav_Attit_Patterns =~					
LrndGrwngU_B.3	1.000				0.864
PstRltnshp_B.3	0.881	0.060	14.772	0.000	0.762
GtAlngPrnt_B.3	1.004	0.054	18.714	0.000	0.868
FrndshpsAL_B.3	1.058	0.054	19.424	0.000	0.914
Fights_Befr.3n	0.824	0.070	11.722	0.000	0.712
FlngsHrt_Bfr.3	0.929	0.059	15.711	0.000	0.802
RghtndWrng_B.3	0.899	0.060	14.959	0.000	0.777

Std.all

0.865

0.724

0.811

0.859

0.922

0.902

0.849

0.864

0.762

0.868

0.914

0.712

0.802

0.777

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Skills_and_Partner_Sel ~~					
Bhv_Attit_Pttrn	0.468	0.067	6.997	0.000	0.626

Std.all

0.626

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000

.Commnct_Bfr.3n	0.000	0.000	0.000
.CnflctMngm_B.3	0.000	0.000	0.000
.RghtPrtnr_Bf.3	0.000	0.000	0.000
.LrnPrtnr_Bfr.3	0.000	0.000	0.000
.PcRltnshp_Bf.3	0.000	0.000	0.000
.WrngSgns_Bf.3	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
Skills_nd_Prt_S	0.000	0.000	0.000
Bhv_Attd_Pttrn	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_B.3 1	0.345	0.120	2.872	0.004	0.345	0.345
Hlthy_Rl_B.3 2	1.712	0.207	8.262	0.000	1.712	1.712
Cmmnct_Bfr.3 1	0.209	0.118	1.763	0.078	0.209	0.209
Cmmnct_Bfr.3 2	1.624	0.195	8.320	0.000	1.624	1.624
CnflctMn_B.3 1	0.345	0.120	2.872	0.004	0.345	0.345
CnflctMn_B.3 2	1.712	0.207	8.262	0.000	1.712	1.712
RghtPrtn_B.3 1	0.723	0.129	5.595	0.000	0.723	0.723
RghtPrtn_B.3 2	2.378	0.369	6.451	0.000	2.378	2.378
LrnPrtnr_B.3 1	0.487	0.123	3.975	0.000	0.487	0.487
LrnPrtnr_B.3 2	2.111	0.285	7.411	0.000	2.111	2.111
PcRltnsh_B.3 1	0.588	0.125	4.702	0.000	0.588	0.588
PcRltnsh_B.3 2	1.942	0.246	7.877	0.000	1.942	1.942
WrngSgn_B.3 1	0.368	0.120	3.057	0.002	0.368	0.368
WrngSgn_B.3 2	1.942	0.246	7.877	0.000	1.942	1.942
LrndGrwU_B.3 1	0.120	0.118	1.021	0.307	0.120	0.120
LrndGrwU_B.3 2	1.257	0.158	7.948	0.000	1.257	1.257
PstRltns_B.3 1	0.098	0.118	0.835	0.403	0.098	0.098
PstRltns_B.3 2	1.124	0.149	7.558	0.000	1.124	1.124
GtAlngPr_B.3 1	0.055	0.117	0.464	0.643	0.055	0.055
GtAlngPr_B.3 2	0.811	0.133	6.118	0.000	0.811	0.811
FrndshAL_B.3 1	0.055	0.117	0.464	0.643	0.055	0.055
FrndshAL_B.3 2	0.905	0.137	6.626	0.000	0.905	0.905
Fghts_Bfr.3n 1	-0.120	0.118	-1.021	0.307	-0.120	-0.120
Fghts_Bfr.3n 2	0.873	0.135	6.459	0.000	0.873	0.873
FlngsHrt_B.3 1	-0.209	0.118	-1.763	0.078	-0.209	-0.209
FlngsHrt_B.3 2	1.046	0.144	7.264	0.000	1.046	1.046
RghtndWr_B.3 1	-0.368	0.120	-3.057	0.002	-0.368	-0.368
RghtndWr_B.3 2	0.842	0.134	6.289	0.000	0.842	0.842

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Hlthy_Rl_Bfr.3	0.252				0.252	0.252
.Commnct_Bfr.3n	0.475				0.475	0.475
.CnflctMngm_B.3	0.341				0.341	0.341
.RghtPrtnr_Bf.3	0.262				0.262	0.262
.LrnPrtnr_Bfr.3	0.150				0.150	0.150
.PcRltnshp_Bf.3	0.187				0.187	0.187
.WrnngSgns_Bf.3	0.279				0.279	0.279
.LrndGrwngU_B.3	0.253				0.253	0.253
.PstRltnshp_B.3	0.420				0.420	0.420
.GtAlngPrnt_B.3	0.247				0.247	0.247
.FrndshpsAL_B.3	0.165				0.165	0.165
.Fights_Befr.3n	0.493				0.493	0.493
.FlngsHrt_Bfr.3	0.356				0.356	0.356
.RghtndWrng_B.3	0.397				0.397	0.397
Skills_nd_Prt_S	0.748	0.075	10.041	0.000	1.000	1.000
Bhv_Attn_Pttrn	0.747	0.066	11.358	0.000	1.000	1.000

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	1.000				1.000	1.000
Commnct_Bfr.3n	1.000				1.000	1.000
CnflctMngm_B.3	1.000				1.000	1.000
RghtPrtnr_Bf.3	1.000				1.000	1.000
LrnPrtnr_Bfr.3	1.000				1.000	1.000
PcRltnshp_Bf.3	1.000				1.000	1.000
WrnngSgns_Bf.3	1.000				1.000	1.000
LrndGrwngU_B.3	1.000				1.000	1.000
PstRltnshp_B.3	1.000				1.000	1.000
GtAlngPrnt_B.3	1.000				1.000	1.000
FrndshpsAL_B.3	1.000				1.000	1.000
Fights_Befr.3n	1.000				1.000	1.000
FlngsHrt_Bfr.3	1.000				1.000	1.000
RghtndWrng_B.3	1.000				1.000	1.000

6.1.4 Modification Indices

	lhs	op	rhs	mi	epc
1	Behav_Attit_Patterns	=~	Healthy_Rel_Before.3n	11.28882	0.3500178
	sepc.lv		sepc.all		sepc.nox
1	0.3024521	0.3024521	0.3024521		

6.2 Categorical Retrospective Post

6.2.1 Model Fit

lavaan (0.6-1) converged normally after 50 iterations

	Used	Total
Number of observations	124	134
Estimator	DWLS	Robust
Model Fit Test Statistic	67.862	128.326
Degrees of freedom	71	71
P-value (Chi-square)	0.584	0.000
Scaling correction factor		0.725
Shift parameter		34.759
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	15991.638	3632.575
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.000	0.979
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.081	
90 Percent Confidence Interval	0.000 0.048	0.058	0.103
P-value RMSEA <= 0.05	0.961	0.016	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.054	0.054
------	-------	-------

Parameter Estimates:

Information	Expected
-------------	----------

Information saturated (h1) model Unstructured
Standard Errors Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.post =~						
Healthy_Rel.3n	1.000				0.854	0.854
Communicate.3n	1.056	0.035	30.177	0.000	0.902	0.902
CnflctMngmnt.3	1.000	0.046	21.618	0.000	0.854	0.854
PS.post =~						
RightPartnr.3n	1.000				0.831	0.831
LearnPartnr.3n	1.141	0.048	23.652	0.000	0.948	0.948
PaceRltnshp.3n	1.107	0.047	23.775	0.000	0.920	0.920
WarningSgns.3n	1.177	0.050	23.667	0.000	0.979	0.979
PRB.post =~						
LrndGrwngUp.3n	1.000				0.831	0.831
PstRltnshps.3n	1.122	0.053	21.335	0.000	0.933	0.933
GtAlngPrnts.3n	1.059	0.056	18.760	0.000	0.881	0.881
FrndshpsArLk.3	1.103	0.053	20.876	0.000	0.917	0.917
RBA.post =~						
Fights.3n	1.000				0.858	0.858
FeelingsHrt.3n	1.023	0.043	23.554	0.000	0.877	0.877
RightndWrng.3n	1.068	0.046	23.462	0.000	0.916	0.916

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.post ~~						
PS.post	0.696	0.052	13.428	0.000	0.980	0.980
PRB.post	0.498	0.071	7.039	0.000	0.701	0.701
RBA.post	0.601	0.062	9.711	0.000	0.821	0.821
PS.post ~~						
PRB.post	0.508	0.065	7.846	0.000	0.735	0.735
RBA.post	0.609	0.055	11.067	0.000	0.854	0.854
PRB.post ~~						
RBA.post	0.680	0.051	13.237	0.000	0.953	0.953

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000
.GtAlngPrnts.3n	0.000				0.000	0.000

.FrndshpsArLk.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000
HRS.post	0.000	0.000	0.000
PS.post	0.000	0.000	0.000
PRB.post	0.000	0.000	0.000
RBA.post	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl.3n t1	-1.747	0.204	-8.543	0.000	-1.747	-1.747
Hlthy_Rl.3n t2	-0.101	0.113	-0.894	0.371	-0.101	-0.101
Communct.3n t1	-1.585	0.183	-8.650	0.000	-1.585	-1.585
Communct.3n t2	0.000	0.113	0.000	1.000	0.000	0.000
CnflctMngm.3 1	-1.131	0.144	-7.874	0.000	-1.131	-1.131
CnflctMngm.3 2	0.162	0.114	1.430	0.153	0.162	0.162
RghtPrtnr.3n 1	-1.300	0.156	-8.356	0.000	-1.300	-1.300
RghtPrtnr.3n 2	0.061	0.113	0.537	0.592	0.061	0.061
LrnPrtnr.3n t1	-1.661	0.193	-8.624	0.000	-1.661	-1.661
LrnPrtnr.3n t2	-0.266	0.114	-2.323	0.020	-0.266	-0.266
PcRltnshp.3n 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
PcRltnshp.3n 2	-0.183	0.114	-1.609	0.108	-0.183	-0.183
WrngSgns.3n 1	-1.747	0.204	-8.543	0.000	-1.747	-1.747
WrngSgns.3n 2	-0.224	0.114	-1.966	0.049	-0.224	-0.224
LrndGrwngU.3 1	-1.457	0.169	-8.597	0.000	-1.457	-1.457
LrndGrwngU.3 2	-0.204	0.114	-1.788	0.074	-0.204	-0.204
PstRltnshp.3 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
PstRltnshp.3 2	-0.416	0.117	-3.567	0.000	-0.416	-0.416
GtAlngPrnt.3 1	-1.349	0.160	-8.452	0.000	-1.349	-1.349
GtAlngPrnt.3 2	-0.245	0.114	-2.144	0.032	-0.245	-0.245
FrndshpsAL.3 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
FrndshpsAL.3 2	-0.287	0.115	-2.501	0.012	-0.287	-0.287
Fights.3n t1	-1.349	0.160	-8.452	0.000	-1.349	-1.349
Fights.3n t2	-0.372	0.116	-3.212	0.001	-0.372	-0.372
FlngsHrt.3n t1	-1.661	0.193	-8.624	0.000	-1.661	-1.661
FlngsHrt.3n t2	-0.483	0.118	-4.096	0.000	-0.483	-0.483
RghtndWrng.3 1	-1.585	0.183	-8.650	0.000	-1.585	-1.585
RghtndWrng.3 2	-0.576	0.120	-4.797	0.000	-0.576	-0.576

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.3n	0.271				0.271	0.271
.Communicate.3n	0.187				0.187	0.187
.CnflctMngmnt.3	0.271				0.271	0.271
.RightPartnr.3n	0.309				0.309	0.309
.LearnPartnr.3n	0.101				0.101	0.101
.PaceRltnshp.3n	0.153				0.153	0.153

.WarningSgns.3n	0.042				0.042	0.042
.LrndGrwngUp.3n	0.309				0.309	0.309
.PstRltnshps.3n	0.130				0.130	0.130
.GtAlngPrnts.3n	0.224				0.224	0.224
.FrndshpsArLk.3	0.159				0.159	0.159
.Fights.3n	0.264				0.264	0.264
.FeelingsHrt.3n	0.231				0.231	0.231
.RightndWrng.3n	0.161				0.161	0.161
HRS.post	0.729	0.057	12.818	0.000	1.000	1.000
PS.post	0.691	0.060	11.428	0.000	1.000	1.000
PRB.post	0.691	0.071	9.770	0.000	1.000	1.000
RBA.post	0.736	0.058	12.732	0.000	1.000	1.000

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Healthy_Rel.3n	1.000				1.000	1.000
Communicate.3n	1.000				1.000	1.000
CnflctMngmnt.3	1.000				1.000	1.000
RightPartnr.3n	1.000				1.000	1.000
LearnPartnr.3n	1.000				1.000	1.000
PaceRltnshp.3n	1.000				1.000	1.000
WarningSgns.3n	1.000				1.000	1.000
LrndGrwngUp.3n	1.000				1.000	1.000
PstRltnshps.3n	1.000				1.000	1.000
GtAlngPrnts.3n	1.000				1.000	1.000
FrndshpsArLk.3	1.000				1.000	1.000
Fights.3n	1.000				1.000	1.000
FeelingsHrt.3n	1.000				1.000	1.000
RightndWrng.3n	1.000				1.000	1.000

6.2.2 Modification Indices

	lhs	op	rhs	mi	epc	sepc.lv
1	HRS.post	=~	RightPartner.3n	17.31322	4.5596595	3.8939481
2	ConflictManagement.3n	~~	RightPartner.3n	12.72452	0.1837051	0.1837051
	sepc.all		sepc.nox			
1	3.8939481		3.8939481			
2	0.6350096		0.6350096			

6.2.3 Two Factor Solution

lavaan (0.6-1) converged normally after 37 iterations

	Used	Total
Number of observations	124	134
Estimator	DWLS	Robust
Model Fit Test Statistic	76.506	139.536
Degrees of freedom	75	75
P-value (Chi-square)	0.430	0.000
Scaling correction factor		0.748
Shift parameter		37.195
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	15991.638	3632.575
Degrees of freedom	91	91
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.982
Tucker-Lewis Index (TLI)	1.000	0.978
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.013	0.084	
90 Percent Confidence Interval	0.000 0.053	0.062	0.105
P-value RMSEA <= 0.05	0.926	0.008	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.058	0.058
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Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
Skills_and_Partner_Sel =~					
Healthy_Rel.3n	1.000				0.843
Communicate.3n	1.056	0.035	30.251	0.000	0.890
CnflctMngmnt.3	0.963	0.049	19.476	0.000	0.812
RightPartnr.3n	0.948	0.046	20.443	0.000	0.799
LearnPartnr.3n	1.127	0.042	26.935	0.000	0.950
PaceRltnshp.3n	1.093	0.039	28.263	0.000	0.922
WarningSgns.3n	1.166	0.049	23.582	0.000	0.984
Behav_Attit_Patterns =~					
LrndGrwngUp.3n	1.000				0.811
PstRltnshps.3n	1.112	0.052	21.506	0.000	0.901
GtAlngPrnts.3n	1.061	0.058	18.434	0.000	0.860
FrndshpsArLk.3	1.105	0.053	20.672	0.000	0.896
Fights.3n	1.072	0.067	15.951	0.000	0.869
FeelingsHrt.3n	1.104	0.062	17.764	0.000	0.895
RightndWrng.3n	1.135	0.055	20.629	0.000	0.920
Std.all					

0.843
0.890
0.812
0.799
0.950
0.922
0.984

0.811
0.901
0.860
0.896
0.869
0.895
0.920

Covariances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv
.ConflictManagement.3n ~~					
.RightPartnr.3n	0.174	0.060	2.885	0.004	0.174
Skills_and_Partner_Sel ~~					
Bhv_Attit_Pttrn	0.544	0.066	8.270	0.000	0.796
Std.all					

0.497
0.796

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000
.GtAlngPrnts.3n	0.000				0.000	0.000
.FrndshpsArLk.3	0.000				0.000	0.000
.Fights.3n	0.000				0.000	0.000
.FeelingsHrt.3n	0.000				0.000	0.000
.RightndWrng.3n	0.000				0.000	0.000
Skills_nd_Prt_S	0.000				0.000	0.000
Bhv_Attr_Pttrn	0.000				0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl.3n t1	-1.747	0.204	-8.543	0.000	-1.747	-1.747
Hlthy_Rl.3n t2	-0.101	0.113	-0.894	0.371	-0.101	-0.101
Communct.3n t1	-1.585	0.183	-8.650	0.000	-1.585	-1.585
Communct.3n t2	0.000	0.113	0.000	1.000	0.000	0.000
CnflctMngm.3 1	-1.131	0.144	-7.874	0.000	-1.131	-1.131
CnflctMngm.3 2	0.162	0.114	1.430	0.153	0.162	0.162
RghtPrtnr.3n 1	-1.300	0.156	-8.356	0.000	-1.300	-1.300
RghtPrtnr.3n 2	0.061	0.113	0.537	0.592	0.061	0.061
LrnPrtnr.3n t1	-1.661	0.193	-8.624	0.000	-1.661	-1.661
LrnPrtnr.3n t2	-0.266	0.114	-2.323	0.020	-0.266	-0.266
PcRltnshp.3n 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
PcRltnshp.3n 2	-0.183	0.114	-1.609	0.108	-0.183	-0.183
WrngSgns.3n 1	-1.747	0.204	-8.543	0.000	-1.747	-1.747
WrngSgns.3n 2	-0.224	0.114	-1.966	0.049	-0.224	-0.224
LrndGrwngU.3 1	-1.457	0.169	-8.597	0.000	-1.457	-1.457
LrndGrwngU.3 2	-0.204	0.114	-1.788	0.074	-0.204	-0.204
PstRltnshp.3 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
PstRltnshp.3 2	-0.416	0.117	-3.567	0.000	-0.416	-0.416
GtAlngPrnt.3 1	-1.349	0.160	-8.452	0.000	-1.349	-1.349
GtAlngPrnt.3 2	-0.245	0.114	-2.144	0.032	-0.245	-0.245
FrndshpsAL.3 1	-1.518	0.176	-8.638	0.000	-1.518	-1.518
FrndshpsAL.3 2	-0.287	0.115	-2.501	0.012	-0.287	-0.287
Fights.3n t1	-1.349	0.160	-8.452	0.000	-1.349	-1.349
Fights.3n t2	-0.372	0.116	-3.212	0.001	-0.372	-0.372
FlngsHrt.3n t1	-1.661	0.193	-8.624	0.000	-1.661	-1.661
FlngsHrt.3n t2	-0.483	0.118	-4.096	0.000	-0.483	-0.483

RghtndWrng.3 1	-1.585	0.183	-8.650	0.000	-1.585	-1.585
RghtndWrng.3 2	-0.576	0.120	-4.797	0.000	-0.576	-0.576

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.Healthy_Rel.3n	0.289				0.289	0.289
.Communicate.3n	0.208				0.208	0.208
.CnflctMngmnt.3	0.340				0.340	0.340
.RightPartnr.3n	0.361				0.361	0.361
.LearnPartnr.3n	0.098				0.098	0.098
.PaceRltnshp.3n	0.150				0.150	0.150
.WarningSgns.3n	0.033				0.033	0.033
.LrndGrwngUp.3n	0.343				0.343	0.343
.PstRltnshps.3n	0.188				0.188	0.188
.GtAlngPrnts.3n	0.260				0.260	0.260
.FrndshpsArLk.3	0.197				0.197	0.197
.Fights.3n	0.245				0.245	0.245
.FeelingsHrt.3n	0.199				0.199	0.199
.RightndWrng.3n	0.154				0.154	0.154
Sklls_nd_Prt_S	0.711	0.058	12.165	0.000	1.000	1.000
Bhv_Attn_Pttrn	0.657	0.071	9.247	0.000	1.000	1.000

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Healthy_Rel.3n	1.000				1.000	1.000
Communicate.3n	1.000				1.000	1.000
CnflctMngmnt.3	1.000				1.000	1.000
RightPartnr.3n	1.000				1.000	1.000
LearnPartnr.3n	1.000				1.000	1.000
PaceRltnshp.3n	1.000				1.000	1.000
WarningSgns.3n	1.000				1.000	1.000
LrndGrwngUp.3n	1.000				1.000	1.000
PstRltnshps.3n	1.000				1.000	1.000
GtAlngPrnts.3n	1.000				1.000	1.000
FrndshpsArLk.3	1.000				1.000	1.000
Fights.3n	1.000				1.000	1.000
FeelingsHrt.3n	1.000				1.000	1.000
RightndWrng.3n	1.000				1.000	1.000

6.2.4 Modification Indices

	lhs	op	rhs	mi	epc
1	Skills_and_Partner_Sel	=~	FeelingsHurt.3n	18.93142	0.5670981
2	Skills_and_Partner_Sel	=~	FriendshipsAreLike.3n	15.61349	-0.5517153
	sepc.lv		sepc.all		sepc.nox
1	0.4781690		0.4781690		0.4781690
2	-0.4651985		-0.4651985		-0.4651985

6.3 Categorical Retrospective Pre and Post

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 506 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	217.455	354.631
Degrees of freedom	308	308
P-value (Chi-square)	1.000	0.035
Scaling correction factor		1.375
Shift parameter		196.490
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.989
Tucker-Lewis Index (TLI)	1.006	0.986
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.037
90 Percent Confidence Interval	0.000 0.000	0.011 0.054
P-value RMSEA <= 0.05	1.000	0.894
Robust RMSEA		NA
90 Percent Confidence Interval		NA NA

Standardized Root Mean Square Residual:

SRMR	0.079	0.079
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Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
Hlthy_Rl_Bfr.3	1.000				2.480	0.927
Commnct_Bfr.3n	0.479	0.203	2.359	0.018	1.187	0.765
CnflctMngm_B.3	0.733	0.312	2.349	0.019	1.818	0.876
HRS.post =~						
Healthy_Rel.3n	1.000				1.750	0.873
Communicate.3n	0.165	0.138	1.191	0.234	0.288	0.911
CnflctMngmnt.3	0.346	0.202	1.711	0.087	0.606	0.804
PS.rpre =~						
RghtPrtnr_Bf.3	1.000				1.750	0.868
LrnPrtnr_Bfr.3	1.935	0.946	2.045	0.041	3.386	0.959
PcRltnshp_Bf.3	1.361	0.514	2.647	0.008	2.382	0.922
WrngSgns_Bf.3	1.047	0.337	3.111	0.002	1.832	0.878
PS.post =~						
RightPartnr.3n	1.000				1.970	0.805
LearnPartnr.3n	1.729	1.200	1.441	0.150	3.405	0.944
PaceRltnshp.3n	1.018	0.508	2.004	0.045	2.006	0.922
WarningSgns.3n	0.836	0.504	1.657	0.097	1.647	0.985
PRB.rpre =~						
LrndGrwngU_B.3	1.000				2.031	0.897
PstRltnshp_B.3	0.612	0.132	4.646	0.000	1.242	0.779
GtAlngPrnt_B.3	0.843	0.196	4.298	0.000	1.712	0.863
FrndshpsAL_B.3	1.078	0.269	4.006	0.000	2.190	0.910
PRB.post =~						
LrndGrwngUp.3n	1.000				1.617	0.820
PstRltnshps.3n	0.227	0.459	0.495	0.621	0.367	0.911
GtAlngPrnts.3n	0.043	0.447	0.096	0.923	0.070	0.863
FrndshpsArLk.3	0.049	0.516	0.095	0.924	0.080	0.914
RBA.rpre =~						
Fights_Befr.3n	1.000				1.165	0.759
FlngsHrt_Bfr.3	1.247	0.250	4.987	0.000	1.452	0.824
RghtndWrng_B.3	1.197	0.265	4.514	0.000	1.394	0.813
RBA.post =~						
Fights.3n	1.000				1.256	0.837
FeelingsHrt.3n	0.580	0.402	1.442	0.149	0.728	0.846
RightndWrng.3n	1.773	1.979	0.896	0.370	2.226	0.921

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.639	0.669	0.955	0.339
PS.rpre	3.432	1.383	2.482	0.013

PS.post	0.331	0.576	0.575	0.565
PRB.rpre	3.006	1.254	2.398	0.016
PRB.post	-0.448	0.490	-0.915	0.360
RBA.rpre	1.859	0.782	2.377	0.017
RBA.post	0.296	0.417	0.711	0.477
HRS.post ~~				
PS.rpre	-0.090	0.351	-0.256	0.798
PS.post	3.512	1.786	1.966	0.049
PRB.rpre	0.821	0.520	1.580	0.114
PRB.post	1.973	0.997	1.980	0.048
RBA.rpre	0.434	0.305	1.423	0.155
RBA.post	1.876	0.935	2.006	0.045
PS.rpre ~~				
PS.post	0.029	0.406	0.072	0.942
PRB.rpre	1.960	0.627	3.127	0.002
PRB.post	-0.243	0.342	-0.712	0.476
RBA.rpre	1.138	0.378	3.013	0.003
RBA.post	0.052	0.297	0.174	0.861
PS.post ~~				
PRB.rpre	0.893	0.559	1.596	0.110
PRB.post	2.236	0.882	2.535	0.011
RBA.rpre	0.310	0.283	1.093	0.274
RBA.post	2.031	0.846	2.399	0.016
PRB.rpre ~~				
PRB.post	1.321	0.583	2.265	0.023
RBA.rpre	2.217	0.678	3.272	0.001
RBA.post	0.876	0.426	2.055	0.040
PRB.post ~~				
RBA.rpre	0.378	0.258	1.469	0.142
RBA.post	1.905	0.720	2.644	0.008
RBA.rpre ~~				
RBA.post	0.466	0.242	1.928	0.054
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.747	0.607	1.230	0.219
.Communicate_Before.3n ~~				
.Communicate.3n	0.096	0.089	1.080	0.280
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.206	0.167	1.236	0.217
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.167	0.511	0.326	0.744
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.671	2.085	0.802	0.423
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.879	0.828	1.062	0.288
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.291	0.346	0.840	0.401
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.210	0.467	0.449	0.653

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.180	0.381	0.471	0.637
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.018	0.189	0.095	0.924
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.050	0.522	0.095	0.924
.Fights_Before.3n ~~				
.Fights.3n	0.506	0.230	2.197	0.028
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.265	0.195	1.362	0.173
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.881	1.000	0.881	0.378
Std.lv Std.all				

0.147	0.147
0.791	0.791
0.068	0.068
0.597	0.597
-0.112	-0.112
0.644	0.644
0.095	0.095

-0.029	-0.029
1.019	1.019
0.231	0.231
0.697	0.697
0.213	0.213
0.854	0.854

0.009	0.009
0.551	0.551
-0.086	-0.086
0.558	0.558
0.024	0.024

0.223	0.223
0.702	0.702
0.135	0.135
0.821	0.821

0.402	0.402
0.937	0.937
0.343	0.343

0.201	0.201
0.938	0.938

0.319	0.319
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0.747	0.764
0.096	0.736
0.206	0.459
0.167	0.115
1.671	1.403
0.879	1.044
0.291	1.017
0.210	0.185
0.180	1.080
0.018	0.443
0.050	1.403
0.506	0.618
0.265	0.578
0.881	0.938

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	4.690	1.599	2.933	0.003	2.680	2.680
PS.rpre	0.000				0.000	0.000
PS.post	4.684	0.939	4.991	0.000	2.378	2.378
PRB.rpre	0.000				0.000	0.000
PRB.post	3.249	0.514	6.316	0.000	2.009	2.009
RBA.rpre	0.000				0.000	0.000
RBA.post	1.940	0.352	5.508	0.000	1.545	1.545
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.	(V1t1)	0.828	0.439	1.887	0.059	0.828	0.310
H_R_B.	(V1t2)	4.532	1.492	3.038	0.002	4.532	1.695
H_R.3	(V1t1)	0.828	0.439	1.887	0.059	0.828	0.413
H_R.3	(V1t2)	4.532	1.492	3.038	0.002	4.532	2.260
C_B.3	(V2t1)	0.264	0.192	1.377	0.168	0.264	0.170
C_B.3	(V2T1)	2.494	0.369	6.767	0.000	2.494	1.607
Cm.3 1	(V2t1)	0.264	0.192	1.377	0.168	0.264	0.834
Cm.3 2	(V2T2)	0.769	0.592	1.299	0.194	0.769	2.430
CM_B.3	(V3t1)	0.692	0.288	2.402	0.016	0.692	0.334
CM_B.3	(V3T1)	3.516	0.676	5.199	0.000	3.516	1.695
CM.3 1	(V3t1)	0.692	0.288	2.402	0.016	0.692	0.918
CM.3 2	(V3T2)	1.753	0.788	2.225	0.026	1.753	2.324
RP_B.3	(V4t1)	1.403	0.359	3.909	0.000	1.403	0.696
RP_B.3	(V4t2)	4.767	0.932	5.115	0.000	4.767	2.365
RP.3 1	(V4t1)	1.403	0.359	3.909	0.000	1.403	0.573
RP.3 2	(V4t2)	4.767	0.932	5.115	0.000	4.767	1.947
LP_B.3	(V5t1)	1.609	0.797	2.019	0.044	1.609	0.456
LP_B.3	(V5T1)	7.402	3.180	2.328	0.020	7.402	2.097
LP.3 1	(V5t1)	1.609	0.797	2.019	0.044	1.609	0.446
LP.3 2	(V5T2)	6.980	4.927	1.417	0.157	6.980	1.935
PR_B.3	(V6t1)	1.442	0.480	3.006	0.003	1.442	0.558
PR_B.3	(V6T1)	4.976	1.116	4.460	0.000	4.976	1.926
PR.3 1	(V6t1)	1.442	0.480	3.006	0.003	1.442	0.663
PR.3 2	(V6T2)	4.400	2.190	2.009	0.045	4.400	2.022
WS_B.3	(V7t1)	0.696	0.287	2.427	0.015	0.696	0.334
WS_B.3	(V7T1)	4.021	0.795	5.057	0.000	4.021	1.926

WS.3 1	(V7t1)	0.696	0.287	2.427	0.015	0.696	0.417
WS.3 2	(V7T2)	3.516	2.239	1.570	0.116	3.516	2.104
LGU_B.	(V8t1)	0.231	0.283	0.815	0.415	0.231	0.102
LGU_B.	(V8t2)	2.913	0.445	6.545	0.000	2.913	1.287
LGU.3	(V8t1)	0.231	0.283	0.815	0.415	0.231	0.117
LGU.3	(V8t2)	2.913	0.445	6.545	0.000	2.913	1.476
PR_B.3	(V9t1)	0.090	0.193	0.467	0.640	0.090	0.056
PR_B.3	(V9T1)	1.758	0.261	6.736	0.000	1.758	1.102
PR.3 1	(V9t1)	0.090	0.193	0.467	0.640	0.090	0.223
PR.3 2	(V9T2)	0.564	1.156	0.488	0.625	0.564	1.399
GAP_B.	(V10t)	0.022	0.237	0.093	0.926	0.022	0.011
GAP_B.	(V10T1)	1.556	0.274	5.684	0.000	1.556	0.785
GAP.3	(V10t)	0.022	0.237	0.093	0.926	0.022	0.274
GAP.3	(V10T2)	0.120	1.259	0.096	0.924	0.120	1.495
FAL_B.	(V11t)	0.027	0.289	0.093	0.926	0.027	0.011
FAL_B.	(V11T1)	2.121	0.401	5.288	0.000	2.121	0.881
FAL.3	(V11t)	0.027	0.289	0.093	0.926	0.027	0.307
FAL.3	(V11T2)	0.135	1.425	0.095	0.924	0.135	1.551
F_B.3	(V12t)	-0.156	0.182	-0.857	0.391	-0.156	-0.102
F_B.3	(V122)	1.404	0.238	5.897	0.000	1.404	0.915
Fg.3 1	(V12t)	-0.156	0.182	-0.857	0.391	-0.156	-0.104
Fg.3 2	(V122)	1.404	0.238	5.897	0.000	1.404	0.936
FH_B.3	(V13t)	-0.422	0.208	-2.033	0.042	-0.422	-0.239
FH_B.3	(V13T1)	1.803	0.245	7.365	0.000	1.803	1.023
FH.3 1	(V13t)	-0.422	0.208	-2.033	0.042	-0.422	-0.491
FH.3 2	(V13T2)	0.711	0.500	1.424	0.155	0.711	0.827
RW_B.3	(V14t)	-0.655	0.204	-3.208	0.001	-0.655	-0.382
RW_B.3	(V14T1)	1.455	0.247	5.893	0.000	1.455	0.848
RW.3 1	(V14t)	-0.655	0.204	-3.208	0.001	-0.655	-0.271
RW.3 2	(V14T2)	2.091	2.438	0.857	0.391	2.091	0.865

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.149	4.367	1.408	0.159	1.000	1.000
HRS.post	3.063	2.251	1.361	0.174	1.000	1.000
PS.rpre	3.062	1.252	2.445	0.014	1.000	1.000
PS.post	3.881	2.175	1.784	0.074	1.000	1.000
PRB.rpre	4.127	1.527	2.702	0.007	1.000	1.000
PRB.post	2.616	1.081	2.420	0.016	1.000	1.000
RBA.rpre	1.356	0.498	2.725	0.006	1.000	1.000
RBA.post	1.576	0.773	2.041	0.041	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.140
.Commnct_Bfr.3n	1.000				1.000	0.415
.CnflctMngm_B.3	1.000				1.000	0.232
.RghtPrtnr_Bf.3	1.000				1.000	0.246
.LrnPrtnr_Bfr.3	1.000				1.000	0.080
.PcRltnshp_Bf.3	1.000				1.000	0.150
.WrngSgns_Bf.3	1.000				1.000	0.230

.LrndGrwngU_B.3	1.000				1.000	0.195
.PstRltnshp_B.3	1.000				1.000	0.393
.GtAlngPrnt_B.3	1.000				1.000	0.254
.FrndshpsAL_B.3	1.000				1.000	0.173
.Fights_Befr.3n	1.000				1.000	0.424
.FlngsHrt_Bfr.3	1.000				1.000	0.322
.RghtndWrng_B.3	1.000				1.000	0.340
.Healthy_Rel.3n	0.956	0.643	1.486	0.137	0.956	0.238
.Communicate.3n	0.017	0.028	0.617	0.538	0.017	0.171
.CnflctMngmnt.3	0.201	0.209	0.964	0.335	0.201	0.354
.RightPartnr.3n	2.115	1.056	2.003	0.045	2.115	0.353
.LearnPartnr.3n	1.420	2.394	0.593	0.553	1.420	0.109
.PaceRltnshp.3n	0.710	0.874	0.813	0.416	0.710	0.150
.WarningSgns.3n	0.082	0.157	0.520	0.603	0.082	0.029
.LrndGrwngUp.3n	1.279	0.476	2.686	0.007	1.279	0.328
.PstRltnshps.3n	0.028	0.115	0.241	0.810	0.028	0.170
.GtAlngPrnts.3n	0.002	0.034	0.048	0.962	0.002	0.254
.FrndshpsArLk.3	0.001	0.026	0.048	0.962	0.001	0.164
.Fights.3n	0.673	0.250	2.692	0.007	0.673	0.299
.FeelingsHrt.3n	0.210	0.250	0.838	0.402	0.210	0.284
.RightndWrng.3n	0.882	1.635	0.539	0.590	0.882	0.151

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.374				0.374	1.000
Commnct_Bfr.3n	0.644				0.644	1.000
CnflctMngm_B.3	0.482				0.482	1.000
Healthy_Rel.3n	0.499				0.499	1.000
Communicate.3n	3.157				3.157	1.000
CnflctMngmnt.3	1.326				1.326	1.000
RghtPrtnr_Bf.3	0.496				0.496	1.000
LrnPrtnr_Bfr.3	0.283				0.283	1.000
PcRltnshp_Bf.3	0.387				0.387	1.000
WrngSgns_Bf.3	0.479				0.479	1.000
RightPartnr.3n	0.408				0.408	1.000
LearnPartnr.3n	0.277				0.277	1.000
PaceRltnshp.3n	0.460				0.460	1.000
WarningSgns.3n	0.598				0.598	1.000
LrndGrwngU_B.3	0.442				0.442	1.000
PstRltnshp_B.3	0.627				0.627	1.000
GtAlngPrnt_B.3	0.504				0.504	1.000
FrndshpsAL_B.3	0.415				0.415	1.000
LrndGrwngUp.3n	0.507				0.507	1.000
PstRltnshps.3n	2.480				2.480	1.000
GtAlngPrnts.3n	12.420				12.420	1.000
FrndshpsArLk.3	11.474				11.474	1.000
Fights_Befr.3n	0.651				0.651	1.000
FlngsHrt_Bfr.3	0.567				0.567	1.000

RghtndWrng_B.3	0.583	0.583	1.000
Fights.3n	0.667	0.667	1.000
FeelingsHrt.3n	1.163	1.163	1.000
RightndWrng.3n	0.414	0.414	1.000

6.4 Measurement Invariance

6.4.1 Configural Invariant

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 191 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	217.455	339.559
Degrees of freedom	294	294
P-value (Chi-square)	1.000	0.035
Scaling correction factor		1.407
Shift parameter		185.053
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.989
Tucker-Lewis Index (TLI)	1.005	0.986
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.038	
90 Percent Confidence Interval	0.000	0.000	0.011 0.054
P-value RMSEA <= 0.05	1.000	0.881	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.079	0.079
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Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
Hlthy_Rl_Bfr.3	1.000				2.481	0.927
Commnct_Bfr.3n	0.479	0.203	2.357	0.018	1.187	0.765
CnflctMngm_B.3	0.733	0.312	2.348	0.019	1.818	0.876
HRS.post =~						
Healthy_Rel.3n	1.000				1.751	0.873
Communicate.3n	0.165	0.138	1.191	0.234	0.288	0.911
CnflctMngmnt.3	0.346	0.202	1.711	0.087	0.606	0.804
PS.rpre =~						
RghtPrtnr_Bf.3	1.000				0.911	0.868
LrnPrtnr_Bfr.3	1.914	0.298	6.429	0.000	1.744	0.959
PcRltnshp_Bf.3	1.731	0.463	3.738	0.000	1.577	0.922
WrnngSgns_Bf.3	1.870	0.279	6.708	0.000	1.703	0.878
PS.post =~						
RightPartnr.3n	1.000				1.026	0.805
LearnPartnr.3n	2.026	0.284	7.146	0.000	2.078	0.944
PaceRltnshp.3n	2.244	0.390	5.758	0.000	2.301	0.922
WarningSgns.3n	2.045	0.326	6.265	0.000	2.097	0.985
PRB.rpre =~						
LrndGrwngU_B.3	1.000				0.968	0.897
PstRltnshp_B.3	1.481	0.256	5.793	0.000	1.434	0.779
GtAlngPrnt_B.3	1.494	0.274	5.463	0.000	1.447	0.863
FrndshpsAL_B.3	1.622	0.325	4.997	0.000	1.571	0.910
PRB.post =~						
LrndGrwngUp.3n	1.000				0.771	0.820
PstRltnshps.3n	1.773	0.347	5.105	0.000	1.366	0.911
GtAlngPrnts.3n	2.127	0.280	7.604	0.000	1.639	0.863
FrndshpsArLk.3	2.373	0.279	8.499	0.000	1.829	0.914
RBA.rpre =~						
Fights_Befr.3n	1.000				0.789	0.759
FlngsHrt_Bfr.3	1.969	0.261	7.558	0.000	1.553	0.824
RghtndWrng_B.3	1.703	0.271	6.273	0.000	1.343	0.813
RBA.post =~						
Fights.3n	1.000				0.850	0.837
FeelingsHrt.3n	1.503	0.285	5.268	0.000	1.278	0.846
RightndWrng.3n	1.938	0.348	5.576	0.000	1.648	0.921

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				

HRS.post	0.639	0.669	0.955	0.340
PS.rpre	1.787	0.622	2.872	0.004
PS.post	0.172	0.291	0.593	0.553
PRB.rpre	1.433	0.498	2.878	0.004
PRB.post	-0.214	0.234	-0.911	0.362
RBA.rpre	1.259	0.427	2.952	0.003
RBA.post	0.201	0.270	0.744	0.457
HRS.post ~~				
PS.rpre	-0.047	0.182	-0.257	0.798
PS.post	1.829	0.677	2.701	0.007
PRB.rpre	0.391	0.232	1.686	0.092
PRB.post	0.941	0.416	2.259	0.024
RBA.rpre	0.294	0.193	1.523	0.128
RBA.post	1.271	0.500	2.543	0.011
PS.rpre ~~				
PS.post	0.008	0.110	0.072	0.942
PRB.rpre	0.486	0.141	3.455	0.001
PRB.post	-0.060	0.085	-0.713	0.476
RBA.rpre	0.401	0.143	2.805	0.005
RBA.post	0.018	0.104	0.176	0.861
PS.post ~~				
PRB.rpre	0.222	0.123	1.802	0.072
PRB.post	0.555	0.145	3.828	0.000
RBA.rpre	0.109	0.099	1.107	0.268
RBA.post	0.716	0.172	4.171	0.000
PRB.rpre ~~				
PRB.post	0.300	0.090	3.321	0.001
RBA.rpre	0.716	0.164	4.355	0.000
RBA.post	0.283	0.104	2.728	0.006
PRB.post ~~				
RBA.rpre	0.122	0.073	1.674	0.094
RBA.post	0.615	0.141	4.366	0.000
RBA.rpre ~~				
RBA.post	0.214	0.081	2.629	0.009
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.747	0.608	1.230	0.219
.Communicate_Before.3n ~~				
.Communicate.3n	0.096	0.089	1.080	0.280
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.206	0.167	1.236	0.217
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.045	0.139	0.325	0.745
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.525	0.320	1.642	0.101
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.668	0.402	1.664	0.096
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.344	0.349	0.987	0.324

.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.048	0.103	0.462	0.644
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.771	0.294	2.619	0.009
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.358	0.246	1.454	0.146
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.815	0.272	3.000	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.232	0.105	2.214	0.027
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.498	0.285	1.747	0.081
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.628	0.253	2.480	0.013
Std.lv Std.all				
0.147	0.147			
0.791	0.791			
0.068	0.068			
0.597	0.597			
-0.112	-0.112			
0.644	0.644			
0.095	0.095			
-0.029	-0.029			
1.019	1.019			
0.231	0.231			
0.697	0.697			
0.213	0.213			
0.854	0.854			
0.009	0.009			
0.551	0.551			
-0.086	-0.086			
0.558	0.558			
0.024	0.024			
0.223	0.223			
0.702	0.702			
0.135	0.135			
0.821	0.821			
0.402	0.402			
0.937	0.937			
0.343	0.343			
0.201	0.201			
0.938	0.938			

0.319	0.319
0.747	0.764
0.096	0.736
0.206	0.459
0.045	0.115
0.525	1.403
0.668	1.044
0.344	1.017
0.048	0.185
0.771	1.080
0.358	0.443
0.815	1.403
0.232	0.618
0.498	0.578
0.628	0.938

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	4.692	1.601	2.931	0.003	2.680	2.680
PS.rpre	-1.364	0.229	-5.965	0.000	-1.497	-1.497
PS.post	1.075	0.180	5.956	0.000	1.048	1.048
PRB.rpre	-0.793	0.157	-5.053	0.000	-0.819	-0.819
PRB.post	0.755	0.116	6.522	0.000	0.980	0.980
RBA.rpre	-0.621	0.119	-5.204	0.000	-0.787	-0.787
RBA.post	0.693	0.141	4.906	0.000	0.815	0.815
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000

.LrnPrtnr_Bfr.3	0.000	0.000	0.000
.PcRltnshp_Bf.3	0.000	0.000	0.000
.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.	(V1t1)	0.828	0.439	1.886	0.059	0.828	0.310
H_R_B.	(V1t2)	4.533	1.493	3.036	0.002	4.533	1.695
H_R.3	(V1t1)	0.828	0.439	1.886	0.059	0.828	0.413
H_R.3	(V1t2)	4.533	1.493	3.036	0.002	4.533	2.260
C_B.3	(V2t1)	0.264	0.192	1.377	0.168	0.264	0.170
C_B.3	(V2T1)	2.494	0.369	6.767	0.000	2.494	1.607
Cm.3 1	(V2t1)	0.264	0.192	1.377	0.168	0.264	0.834
Cm.3 2	(V2T2)	0.770	0.592	1.299	0.194	0.770	2.429
CM_B.3	(V3t1)	0.692	0.288	2.402	0.016	0.692	0.334
CM_B.3	(V3T1)	3.516	0.676	5.199	0.000	3.516	1.695
CM.3 1	(V3t1)	0.692	0.288	2.402	0.016	0.692	0.917
CM.3 2	(V3T2)	1.753	0.788	2.225	0.026	1.753	2.324
RP_B.3	(V4t1)	-0.634	0.132	-4.809	0.000	-0.634	-0.604
RP_B.3	(V4t2)	1.118	0.180	6.218	0.000	1.118	1.065
RP.3 1	(V4t1)	-0.634	0.132	-4.809	0.000	-0.634	-0.497
RP.3 2	(V4t2)	1.118	0.180	6.218	0.000	1.118	0.877
LP_B.3	(V5t1)	-1.782	0.130	-13.690	0.000	-1.782	-0.980
LP_B.3	(V5T1)	1.201	0.618	1.942	0.052	1.201	0.661
LP.3 1	(V5t1)	-1.782	0.130	-13.690	0.000	-1.782	-0.809
LP.3 2	(V5T2)	1.496	0.317	4.718	0.000	1.496	0.679
PR_B.3	(V6t1)	-1.406	0.197	-7.120	0.000	-1.406	-0.822
PR_B.3	(V6T1)	0.934	0.715	1.307	0.191	0.934	0.546
PR.3 1	(V6t1)	-1.406	0.197	-7.120	0.000	-1.406	-0.563
PR.3 2	(V6T2)	1.987	0.461	4.310	0.000	1.987	0.796

WS_B.3	(V7t1)	-1.903	0.132	-14.371	0.000	-1.903	-0.981
WS_B.3	(V7T1)	1.188	0.651	1.825	0.068	1.188	0.612
WS.3 1	(V7t1)	-1.903	0.132	-14.371	0.000	-1.903	-0.894
WS.3 2	(V7T2)	1.689	0.408	4.142	0.000	1.689	0.793
LGU_B.	(V8t1)	-0.683	0.120	-5.677	0.000	-0.683	-0.633
LGU_B.	(V8t2)	0.595	0.093	6.378	0.000	0.595	0.552
LGU.3	(V8t1)	-0.683	0.120	-5.677	0.000	-0.683	-0.726
LGU.3	(V8t2)	0.595	0.093	6.378	0.000	0.595	0.633
PR_B.3	(V9t1)	-1.071	0.171	-6.271	0.000	-1.071	-0.582
PR_B.3	(V9T1)	0.855	0.322	2.652	0.008	0.855	0.464
PR.3 1	(V9t1)	-1.071	0.171	-6.271	0.000	-1.071	-0.714
PR.3 2	(V9T2)	0.693	0.188	3.685	0.000	0.693	0.462
GAP_B.	(V101)	-1.166	0.136	-8.563	0.000	-1.166	-0.696
GAP_B.	(V10T1)	0.130	0.248	0.525	0.600	0.130	0.078
GAP.3	(V101)	-1.166	0.136	-8.563	0.000	-1.166	-0.614
GAP.3	(V10T2)	1.152	0.204	5.652	0.000	1.152	0.607
FAL_B.	(V111)	-1.267	0.116	-10.932	0.000	-1.267	-0.734
FAL_B.	(V11T1)	0.234	0.250	0.936	0.349	0.234	0.136
FAL.3	(V111)	-1.267	0.116	-10.932	0.000	-1.267	-0.634
FAL.3	(V11T2)	1.220	0.200	6.098	0.000	1.220	0.610
F_B.3	(V121)	-0.726	0.103	-7.022	0.000	-0.726	-0.699
F_B.3	(V122)	0.330	0.103	3.195	0.001	0.330	0.318
Fg.3 1	(V121)	-0.726	0.103	-7.022	0.000	-0.726	-0.715
Fg.3 2	(V122)	0.330	0.103	3.195	0.001	0.330	0.325
FH_B.3	(V131)	-1.674	0.103	-16.204	0.000	-1.674	-0.887
FH_B.3	(V13T1)	0.707	0.223	3.173	0.002	0.707	0.375
FH.3 1	(V131)	-1.674	0.103	-16.204	0.000	-1.674	-1.109
FH.3 2	(V13T2)	0.316	0.168	1.877	0.060	0.316	0.209
RW_B.3	(V141)	-1.688	0.112	-15.110	0.000	-1.688	-1.021
RW_B.3	(V14T1)	0.345	0.220	1.570	0.116	0.345	0.209
RW.3 1	(V141)	-1.688	0.112	-15.110	0.000	-1.688	-0.944
RW.3 2	(V14T2)	0.345	0.207	1.668	0.095	0.345	0.193

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.153	4.373	1.407	0.159	1.000	1.000
HRS.post	3.065	2.254	1.360	0.174	1.000	1.000
PS.rpre	0.830	0.297	2.799	0.005	1.000	1.000
PS.post	1.052	0.287	3.664	0.000	1.000	1.000
PRB.rpre	0.937	0.223	4.196	0.000	1.000	1.000
PRB.post	0.594	0.158	3.771	0.000	1.000	1.000
RBA.rpre	0.622	0.184	3.379	0.001	1.000	1.000
RBA.post	0.723	0.197	3.671	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.140
.Commnct_Bfr.3n	1.000				1.000	0.415
.CnflctMngm_B.3	1.000				1.000	0.232
.RghtPrtnr_Bf.3	0.271	0.114	2.377	0.017	0.271	0.246
.LrnPrtnr_Bfr.3	0.265	0.242	1.096	0.273	0.265	0.080

.PcRltnshp_Bf.3	0.439	0.350	1.252	0.211	0.439	0.150
.WrngSgns_Bf.3	0.864	0.451	1.915	0.055	0.864	0.230
.LrndGrwngU_B.3	0.227	0.070	3.228	0.001	0.227	0.195
.PstRltnshp_B.3	1.332	0.261	5.114	0.000	1.332	0.393
.GtAlngPrnt_B.3	0.714	0.308	2.316	0.021	0.714	0.254
.FrndshpsAL_B.3	0.514	0.191	2.687	0.007	0.514	0.173
.Fights_Befr.3n	0.459	0.162	2.831	0.005	0.459	0.424
.FlngsHrt_Bfr.3	1.145	0.224	5.104	0.000	1.145	0.322
.RghtndWrng_B.3	0.928	0.260	3.571	0.000	0.928	0.340
.Healthy_Rel.3n	0.957	0.644	1.486	0.137	0.957	0.238
.Communicate.3n	0.017	0.028	0.617	0.538	0.017	0.171
.CnflctMngmnt.3	0.201	0.209	0.964	0.335	0.201	0.354
.RightPartnr.3n	0.573	0.163	3.519	0.000	0.573	0.353
.LearnPartnr.3n	0.528	0.222	2.377	0.017	0.528	0.109
.PaceRltnshp.3n	0.935	0.339	2.756	0.006	0.935	0.150
.WarningSgns.3n	0.132	0.185	0.718	0.473	0.132	0.029
.LrndGrwngUp.3n	0.291	0.092	3.164	0.002	0.291	0.328
.PstRltnshps.3n	0.383	0.148	2.587	0.010	0.383	0.170
.GtAlngPrnts.3n	0.917	0.225	4.078	0.000	0.917	0.254
.FrndshpsArLk.3	0.656	0.137	4.776	0.000	0.656	0.164
.Fights.3n	0.309	0.084	3.668	0.000	0.309	0.299
.FeelingsHrt.3n	0.646	0.239	2.708	0.007	0.646	0.284
.RightndWrng.3n	0.483	0.178	2.708	0.007	0.483	0.151

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.374				0.374	1.000
Commnct_Bfr.3n	0.644				0.644	1.000
CnflctMngm_B.3	0.482				0.482	1.000
Healthy_Rel.3n	0.499				0.499	1.000
Communicate.3n	3.157				3.157	1.000
CnflctMngmnt.3	1.326				1.326	1.000
RghtPrtnr_Bf.3	0.953				0.953	1.000
LrnPrtnr_Bfr.3	0.550				0.550	1.000
PcRltnshp_Bf.3	0.585				0.585	1.000
WrngSgns_Bf.3	0.515				0.515	1.000
RightPartnr.3n	0.784				0.784	1.000
LearnPartnr.3n	0.454				0.454	1.000
PaceRltnshp.3n	0.401				0.401	1.000
WarningSgns.3n	0.470				0.470	1.000
LrndGrwngU_B.3	0.927				0.927	1.000
PstRltnshp_B.3	0.543				0.543	1.000
GtAlngPrnt_B.3	0.597				0.597	1.000
FrndshpsAL_B.3	0.579				0.579	1.000
LrndGrwngUp.3n	1.063				1.063	1.000
PstRltnshps.3n	0.667				0.667	1.000
GtAlngPrnts.3n	0.527				0.527	1.000
FrndshpsArLk.3	0.500				0.500	1.000

Fights_Befr.3n	0.962	0.962	1.000
FlngsHrt_Bfr.3	0.530	0.530	1.000
RghtndWrng_B.3	0.605	0.605	1.000
Fights.3n	0.985	0.985	1.000
FeelingsHrt.3n	0.662	0.662	1.000
RightndWrng.3n	0.559	0.559	1.000

6.4.2 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start
variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi
1	RBA.post	==	LearnPartner.3n	128.60732
2	ConflictManagement.3n	==	RightPartner.3n	38.47565
3	Healthy_Rel.3n	==	PaceRelationship.3n	21.36243
4	Communicate.3n	==	WarningSigns.3n	16.69375
5	PRB.post	==	ConflictManagement.3n	15.25028
6	Healthy_Rel.3n	==	WarningSigns.3n	14.48046
7	PRB.rpre	==	PastRelationships.3n	13.36491
8	RBA.post	==	PaceRelationship.3n	12.32753
9	RBA.rpre	==	PastRelationships.3n	11.53314
10	PRB.post	==	PaceRelationship_Before.3n	10.30036
11	RBA.post	==	PaceRelationship_Before.3n	10.13581
	epc	sepc.lv	sepc.all	sepc.nox
1	12.2734741	10.4369327	4.7411251	4.7411251
2	0.4037191	0.4037191	1.1885515	1.1885515
3	1.9049583	1.9049583	2.0143716	2.0143716
4	0.3023812	0.3023812	6.3522242	6.3522242
5	0.7159293	0.5518786	0.7317951	0.7317951
6	1.5269484	1.5269484	4.2893335	4.2893335
7	-0.3525530	-0.3413244	-0.2275727	-0.2275727
8	1.8261872	1.5529256	0.6220974	0.6220974
9	-0.3857497	-0.3042325	-0.2028422	-0.2028422
10	0.3955436	0.3049073	0.1782226	0.1782226
11	0.3432434	0.2918821	0.1706092	0.1706092

6.4.3 Loading Invariant

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 168 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	222.321	349.465
Degrees of freedom	304	304
P-value (Chi-square)	1.000	0.037
Scaling correction factor		1.415
Shift parameter		192.343
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.989
Tucker-Lewis Index (TLI)	1.006	0.987
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.037	
90 Percent Confidence Interval	0.000	0.000	0.010 0.054
P-value RMSEA <= 0.05	1.000	0.896	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.079	0.079
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
H_R_B.3	1.000				2.552	0.931
Cmm_B.3 (V2L)	0.464	0.205	2.262	0.024	1.184	0.764
CnM_B.3 (V3L)	0.704	0.312	2.259	0.024	1.796	0.874
HRS.post =~						
Hlt_R.3	1.000				2.211	0.878
Cmmnc.3 (V2L)	0.464	0.205	2.262	0.024	1.026	0.909
CnflM.3 (V3L)	0.704	0.312	2.259	0.024	1.556	0.801
PS.rpre =~						
RgP_B.3 (V4L)	1.000				0.917	0.869
LrP_B.3 (V5L)	1.921	0.152	12.607	0.000	1.761	0.959
PcR_B.3 (V6L)	1.924	0.140	13.779	0.000	1.764	0.921
WrS_B.3 (V7L)	1.871	0.185	10.111	0.000	1.715	0.878
PS.post =~						
RghtP.3 (V4L)	1.000				1.080	0.806
LrnPr.3 (V5L)	1.921	0.152	12.607	0.000	2.074	0.944
PcRlt.3 (V6L)	1.924	0.140	13.779	0.000	2.078	0.921
WrnnS.3 (V7L)	1.871	0.185	10.111	0.000	2.020	0.985
PRB.rpre =~						
LGU_B.3 (V8L)	1.000				0.866	0.897
PsR_B.3 (V9L)	1.417	0.123	11.539	0.000	1.226	0.779
GAP_B.3 (V10L)	1.777	0.102	17.424	0.000	1.538	0.863
FAL_B.3 (V11L)	2.022	0.100	20.257	0.000	1.751	0.910
PRB.post =~						
LrnGU.3 (V8L)	1.000				0.781	0.823
PstRl.3 (V9L)	1.417	0.123	11.539	0.000	1.107	0.912
GtAlP.3 (V10L)	1.777	0.102	17.424	0.000	1.388	0.862
FrnAL.3 (V11L)	2.022	0.100	20.257	0.000	1.579	0.913
RBA.rpre =~						
Fgh_B.3 (V12L)	1.000				0.834	0.759
FlH_B.3 (V13L)	1.733	0.144	12.023	0.000	1.445	0.822
RgW_B.3 (V14L)	1.711	0.145	11.794	0.000	1.427	0.814
RBA.post =~						
Fghts.3 (V12L)	1.000				0.877	0.836
FlngH.3 (V13L)	1.733	0.144	12.023	0.000	1.520	0.851
RghtW.3 (V14L)	1.711	0.145	11.794	0.000	1.501	0.918

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.830	0.891	0.931	0.352
PS.rpre	1.850	0.634	2.918	0.004

PS.post	0.187	0.313	0.596	0.551
PRB.rpre	1.318	0.465	2.832	0.005
PRB.post	-0.222	0.244	-0.908	0.364
RBA.rpre	1.369	0.470	2.911	0.004
RBA.post	0.213	0.284	0.752	0.452
HRS.post ~~				
PS.rpre	-0.059	0.232	-0.253	0.801
PS.post	2.431	0.860	2.828	0.005
PRB.rpre	0.442	0.262	1.689	0.091
PRB.post	1.203	0.512	2.350	0.019
RBA.rpre	0.393	0.253	1.553	0.120
RBA.post	1.655	0.622	2.661	0.008
PS.rpre ~~				
PS.post	0.008	0.116	0.072	0.943
PRB.rpre	0.438	0.131	3.343	0.001
PRB.post	-0.062	0.086	-0.715	0.474
RBA.rpre	0.427	0.152	2.809	0.005
RBA.post	0.019	0.108	0.174	0.862
PS.post ~~				
PRB.rpre	0.209	0.114	1.825	0.068
PRB.post	0.592	0.143	4.152	0.000
RBA.rpre	0.121	0.110	1.102	0.271
RBA.post	0.777	0.173	4.481	0.000
PRB.rpre ~~				
PRB.post	0.272	0.082	3.310	0.001
RBA.rpre	0.676	0.158	4.290	0.000
RBA.post	0.260	0.093	2.814	0.005
PRB.post ~~				
RBA.rpre	0.131	0.075	1.747	0.081
RBA.post	0.643	0.140	4.581	0.000
RBA.rpre ~~				
RBA.post	0.233	0.090	2.583	0.010
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.955	0.819	1.166	0.244
.Communicate_Before.3n ~~				
.Communicate.3n	0.343	0.183	1.872	0.061
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.529	0.364	1.450	0.147
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.048	0.147	0.324	0.746
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.529	0.320	1.657	0.098
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.677	0.400	1.692	0.091
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.334	0.334	0.999	0.318
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.042	0.093	0.446	0.656

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.533	0.205	2.601	0.009
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.326	0.227	1.437	0.151
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.788	0.261	3.017	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.254	0.115	2.201	0.028
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.545	0.321	1.701	0.089
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.610	0.242	2.522	0.012
Std.lv Std.all				

0.147	0.147
0.791	0.791
0.068	0.068
0.597	0.597
-0.111	-0.111
0.643	0.643
0.095	0.095

-0.029	-0.029
1.018	1.018
0.231	0.231
0.697	0.697
0.213	0.213
0.854	0.854

0.008	0.008
0.551	0.551
-0.086	-0.086
0.558	0.558
0.023	0.023

0.223	0.223
0.702	0.702
0.135	0.135
0.821	0.821

0.402	0.402
0.937	0.937
0.343	0.343

0.201	0.201
0.939	0.939

0.319	0.319
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0.955	0.790
0.343	0.731
0.529	0.454
0.048	0.115
0.529	1.412
0.677	1.027
0.334	1.020
0.042	0.182
0.533	1.083
0.326	0.443
0.788	1.394
0.254	0.616
0.545	0.581
0.610	0.925

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	4.779	1.733	2.757	0.006	2.162	2.162
PS.rpre	-1.326	0.205	-6.460	0.000	-1.446	-1.446
PS.post	1.127	0.203	5.556	0.000	1.044	1.044
PRB.rpre	-0.701	0.102	-6.888	0.000	-0.810	-0.810
PRB.post	0.704	0.118	5.977	0.000	0.901	0.901
RBA.rpre	-0.576	0.101	-5.692	0.000	-0.691	-0.691
RBA.post	0.805	0.141	5.710	0.000	0.918	0.918
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.	(V1t1)	0.644	0.408	1.581	0.114	0.644	0.235
H_R_B.	(V1t2)	4.594	1.596	2.879	0.004	4.594	1.676
H_R.3	(V1t1)	0.644	0.408	1.581	0.114	0.644	0.256
H_R.3	(V1t2)	4.594	1.596	2.879	0.004	4.594	1.824
C_B.3	(V2t1)	0.322	0.176	1.829	0.067	0.322	0.208
C_B.3	(V2T1)	2.490	0.367	6.778	0.000	2.490	1.607
Cm.3 1	(V2t1)	0.322	0.176	1.829	0.067	0.322	0.286
Cm.3 2	(V2T2)	2.204	0.436	5.053	0.000	2.204	1.955
CM_B.3	(V3t1)	0.795	0.294	2.706	0.007	0.795	0.387
CM_B.3	(V3T1)	3.485	0.659	5.292	0.000	3.485	1.695
CM.3 1	(V3t1)	0.795	0.294	2.706	0.007	0.795	0.409
CM.3 2	(V3T2)	3.694	0.893	4.136	0.000	3.694	1.902
RP_B.3	(V4t1)	-0.613	0.106	-5.802	0.000	-0.613	-0.581
RP_B.3	(V4t2)	1.172	0.207	5.666	0.000	1.172	1.112
RP.3 1	(V4t1)	-0.613	0.106	-5.802	0.000	-0.613	-0.457
RP.3 2	(V4t2)	1.172	0.207	5.666	0.000	1.172	0.875
LP_B.3	(V5t1)	-1.724	0.112	-15.357	0.000	-1.724	-0.939
LP_B.3	(V5T1)	1.302	0.541	2.408	0.016	1.302	0.709
LP.3 1	(V5t1)	-1.724	0.112	-15.357	0.000	-1.724	-0.785
LP.3 2	(V5T2)	1.485	0.331	4.488	0.000	1.485	0.676
PR_B.3	(V6t1)	-1.432	0.143	-10.046	0.000	-1.432	-0.748
PR_B.3	(V6T1)	1.140	0.573	1.989	0.047	1.140	0.595
PR.3 1	(V6t1)	-1.432	0.143	-10.046	0.000	-1.432	-0.635
PR.3 2	(V6T2)	1.786	0.355	5.035	0.000	1.786	0.791
WS_B.3	(V7t1)	-1.831	0.129	-14.162	0.000	-1.831	-0.937
WS_B.3	(V7T1)	1.284	0.552	2.325	0.020	1.284	0.657

WS.3 1	(V7t1)	-1.831	0.129	-14.162	0.000	-1.831	-0.893
WS.3 2	(V7T2)	1.619	0.391	4.138	0.000	1.619	0.789
LGU_B.	(V8t1)	-0.646	0.084	-7.712	0.000	-0.646	-0.669
LGU_B.	(V8t2)	0.542	0.088	6.173	0.000	0.542	0.561
LGU.3	(V8t1)	-0.646	0.084	-7.712	0.000	-0.646	-0.681
LGU.3	(V8t2)	0.542	0.088	6.173	0.000	0.542	0.571
PR_B.3	(V9t1)	-0.923	0.125	-7.383	0.000	-0.923	-0.586
PR_B.3	(V9T1)	0.742	0.227	3.267	0.001	0.742	0.471
PR.3 1	(V9t1)	-0.923	0.125	-7.383	0.000	-0.923	-0.761
PR.3 2	(V9T2)	0.474	0.135	3.508	0.000	0.474	0.391
GAP_B.	(V10t1)	-1.183	0.100	-11.788	0.000	-1.183	-0.664
GAP_B.	(V10T1)	0.153	0.184	0.828	0.408	0.153	0.086
GAP.3	(V10t1)	-1.183	0.100	-11.788	0.000	-1.183	-0.734
GAP.3	(V10T2)	0.865	0.169	5.103	0.000	0.865	0.537
FAL_B.	(V11t1)	-1.338	0.106	-12.626	0.000	-1.338	-0.695
FAL_B.	(V11T1)	0.277	0.192	1.443	0.149	0.277	0.144
FAL.3	(V11t1)	-1.338	0.106	-12.626	0.000	-1.338	-0.773
FAL.3	(V11T2)	0.928	0.185	5.026	0.000	0.928	0.536
F_B.3	(V12t1)	-0.678	0.104	-6.492	0.000	-0.678	-0.617
F_B.3	(V12t2)	0.430	0.108	3.988	0.000	0.430	0.391
Fg.3 1	(V12t1)	-0.678	0.104	-6.492	0.000	-0.678	-0.647
Fg.3 2	(V12t2)	0.430	0.108	3.988	0.000	0.430	0.410
FH_B.3	(V13t1)	-1.506	0.101	-14.964	0.000	-1.506	-0.857
FH_B.3	(V13T1)	0.799	0.229	3.495	0.000	0.799	0.455
FH.3 1	(V13t1)	-1.506	0.101	-14.964	0.000	-1.506	-0.843
FH.3 2	(V13T2)	0.537	0.170	3.154	0.002	0.537	0.301
RW_B.3	(V14t1)	-1.580	0.105	-15.023	0.000	-1.580	-0.901
RW_B.3	(V14T1)	0.501	0.220	2.280	0.023	0.501	0.286
RW.3 1	(V14t1)	-1.580	0.105	-15.023	0.000	-1.580	-0.967
RW.3 2	(V14T2)	0.465	0.174	2.673	0.008	0.465	0.285

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.514	4.876	1.336	0.182	1.000	1.000
HRS.post	4.887	3.767	1.298	0.194	1.000	1.000
PS.rpre	0.840	0.302	2.780	0.005	1.000	1.000
PS.post	1.166	0.284	4.107	0.000	1.000	1.000
PRB.rpre	0.750	0.170	4.408	0.000	1.000	1.000
PRB.post	0.610	0.146	4.171	0.000	1.000	1.000
RBA.rpre	0.695	0.189	3.670	0.000	1.000	1.000
RBA.post	0.769	0.179	4.307	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.133
.Commnct_Bfr.3n	1.000				1.000	0.416
.CnflctMngm_B.3	1.000				1.000	0.237
.RghtPrtnr_Bf.3	0.271	0.111	2.445	0.014	0.271	0.244
.LrnPrtnr_Bfr.3	0.270	0.245	1.100	0.271	0.270	0.080
.PcRltnshp_Bf.3	0.560	0.326	1.718	0.086	0.560	0.153
.WrnngSgns_Bf.3	0.877	0.409	2.143	0.032	0.877	0.230

.LrndGrwngU_B.3	0.181	0.056	3.262	0.001	0.181	0.195
.PstRltnshp_B.3	0.974	0.198	4.932	0.000	0.974	0.393
.GtAlngPrnt_B.3	0.808	0.225	3.591	0.000	0.808	0.255
.FrndshpsAL_B.3	0.640	0.211	3.034	0.002	0.640	0.173
.Fights_Befr.3n	0.512	0.170	3.019	0.003	0.512	0.424
.FlngsHrt_Bfr.3	1.000	0.225	4.437	0.000	1.000	0.324
.RghtndWrng_B.3	1.037	0.255	4.076	0.000	1.037	0.338
.Healthy_Rel.3n	1.460	1.060	1.377	0.168	1.460	0.230
.Communicate.3n	0.220	0.101	2.186	0.029	0.220	0.173
.CnflctMngmnt.3	1.353	0.648	2.087	0.037	1.353	0.359
.RightPartnr.3n	0.629	0.193	3.264	0.001	0.629	0.350
.LearnPartnr.3n	0.521	0.220	2.365	0.018	0.521	0.108
.PaceRltnshp.3n	0.777	0.250	3.107	0.002	0.777	0.152
.WarningSgns.3n	0.122	0.169	0.724	0.469	0.122	0.029
.LrndGrwngUp.3n	0.290	0.096	3.008	0.003	0.290	0.322
.PstRltnshps.3n	0.249	0.091	2.747	0.006	0.249	0.169
.GtAlngPrnts.3n	0.668	0.168	3.975	0.000	0.668	0.258
.FrndshpsArLk.3	0.500	0.109	4.581	0.000	0.500	0.167
.Fights.3n	0.330	0.099	3.334	0.001	0.330	0.300
.FeelingsHrt.3n	0.880	0.267	3.290	0.001	0.880	0.276
.RightndWrng.3n	0.419	0.145	2.901	0.004	0.419	0.157

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.365				0.365	1.000
Commnct_Bfr.3n	0.645				0.645	1.000
CnflctMngm_B.3	0.486				0.486	1.000
Healthy_Rel.3n	0.397				0.397	1.000
Communicate.3n	0.887				0.887	1.000
CnflctMngmnt.3	0.515				0.515	1.000
RghtPrtnr_Bf.3	0.948				0.948	1.000
LrnPrtnr_Bfr.3	0.545				0.545	1.000
PcRltnshp_Bf.3	0.522				0.522	1.000
WrngSgns_Bf.3	0.512				0.512	1.000
RightPartnr.3n	0.746				0.746	1.000
LearnPartnr.3n	0.455				0.455	1.000
PaceRltnshp.3n	0.443				0.443	1.000
WarningSgns.3n	0.488				0.488	1.000
LrndGrwngU_B.3	1.036				1.036	1.000
PstRltnshp_B.3	0.635				0.635	1.000
GtAlngPrnt_B.3	0.561				0.561	1.000
FrndshpsAL_B.3	0.520				0.520	1.000
LrndGrwngUp.3n	1.054				1.054	1.000
PstRltnshps.3n	0.824				0.824	1.000
GtAlngPrnts.3n	0.621				0.621	1.000
FrndshpsArLk.3	0.578				0.578	1.000
Fights_Befr.3n	0.910				0.910	1.000
FlngsHrt_Bfr.3	0.569				0.569	1.000

RghtndWrng_B.3	0.570	0.570	1.000
Fights.3n	0.954	0.954	1.000
FeelingsHrt.3n	0.560	0.560	1.000
RightndWrng.3n	0.612	0.612	1.000

6.4.4 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs op		rhs	mi
1	PRB.post	=~	Communicate.3n	148.52071
2	PRB.post	=~	Healthy_Rel.3n	39.44290
3	ConflictManagement.3n	~~	RightPartner.3n	34.33031
4	RBA.post	=~	LearnPartner.3n	27.42245
5	Healthy_Rel.3n	~~	PaceRelationship.3n	15.85012
6	PRB.rpre	=~	PastRelationships.3n	12.40635
7	PRB.post	=~	ConflictManagement.3n	11.24136
8	RBA.rpre	=~	PastRelationships.3n	11.08685
9	PRB.post	=~	PaceRelationship_Before.3n	10.52150
10	RBA.post	=~	PaceRelationship_Before.3n	10.34822
11	Communicate.3n	~~	WarningSigns.3n	10.03554
	epc	sepc.lv	sepc.all	sepc.nox
1	6.8424102	5.3445237	4.7392204	4.7392204
2	4.3610714	3.4063801	1.3521133	1.3521133
3	0.9705650	0.9705650	1.0519978	1.0519978
4	2.5808605	2.2632656	1.0304741	1.0304741
5	1.6378052	1.6378052	1.5382716	1.5382716
6	-0.2915152	-0.2523811	-0.2079260	-0.2079260
7	1.2345516	0.9642933	0.4963618	0.4963618
8	-0.2802347	-0.2335929	-0.1924472	-0.1924472
9	0.4363698	0.3408432	0.1778721	0.1778721
10	0.3711352	0.3254641	0.1698464	0.1698464
11	0.6144012	0.6144012	3.7487331	3.7487331

6.4.5 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.con, Fit.Rcomb.model.c.load)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq	diff	Df	diff	Pr(>Chisq)
Fit.Rcomb.model.c.con	294			217.46					
Fit.Rcomb.model.c.load	304			222.32	10.428		10		0.4038

6.4.6 Threshold Invariant

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 160 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	230.747	361.349
Degrees of freedom	314	314
P-value (Chi-square)	1.000	0.034
Scaling correction factor		1.423
Shift parameter		199.163
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.989
Tucker-Lewis Index (TLI)	1.005	0.986
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.037
90 Percent Confidence Interval	0.000 0.000	0.011 0.053
P-value RMSEA <= 0.05	1.000	0.897
Robust RMSEA		NA
90 Percent Confidence Interval		NA NA

Standardized Root Mean Square Residual:

SRMR	0.079	0.079
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
H_R_B.3	1.000				2.527	0.930
Cmm_B.3 (V2L)	0.483	0.198	2.437	0.015	1.220	0.773
CnM_B.3 (V3L)	0.688	0.273	2.516	0.012	1.738	0.867
HRS.post =~						
Hlt_R.3	1.000				2.231	0.877
Cmmnc.3 (V2L)	0.483	0.198	2.437	0.015	1.077	0.909
CnflM.3 (V3L)	0.688	0.273	2.516	0.012	1.534	0.801
PS.rpre =~						
RgP_B.3 (V4L)	1.000				0.859	0.874
LrP_B.3 (V5L)	3.090	0.188	16.481	0.000	2.654	0.960
PcR_B.3 (V6L)	2.053	0.110	18.748	0.000	1.763	0.914
WrS_B.3 (V7L)	1.809	0.115	15.665	0.000	1.554	0.877
PS.post =~						
RghtP.3 (V4L)	1.000				0.911	0.806
LrnPr.3 (V5L)	3.090	0.188	16.481	0.000	2.814	0.944
PcRlt.3 (V6L)	2.053	0.110	18.748	0.000	1.869	0.921
WrnnS.3 (V7L)	1.809	0.115	15.665	0.000	1.647	0.985
PRB.rpre =~						
LGU_B.3 (V8L)	1.000				0.857	0.904
PsR_B.3 (V9L)	1.611	0.120	13.373	0.000	1.380	0.791
GAP_B.3 (V10L)	1.493	0.071	20.925	0.000	1.279	0.856
FAL_B.3 (V11L)	2.593	0.122	21.224	0.000	2.222	0.905
PRB.post =~						
LrnGU.3 (V8L)	1.000				0.669	0.824
PstRl.3 (V9L)	1.611	0.120	13.373	0.000	1.077	0.913
GtAlP.3 (V10L)	1.493	0.071	20.925	0.000	0.998	0.860
FrnAL.3 (V11L)	2.593	0.122	21.224	0.000	1.734	0.912
RBA.rpre =~						
Fgh_B.3 (V12L)	1.000				0.696	0.756
FlH_B.3 (V13L)	1.905	0.123	15.495	0.000	1.326	0.825
RgW_B.3 (V14L)	2.043	0.131	15.629	0.000	1.422	0.813
RBA.post =~						
Fghts.3 (V12L)	1.000				0.769	0.836
FlngH.3 (V13L)	1.905	0.123	15.495	0.000	1.465	0.852
RghtW.3 (V14L)	2.043	0.131	15.629	0.000	1.571	0.918

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.831	0.883	0.941	0.347
PS.rpre	1.717	0.551	3.118	0.002

PS.post	0.157	0.263	0.598	0.550
PRB.rpre	1.289	0.431	2.991	0.003
PRB.post	-0.188	0.207	-0.912	0.362
RBA.rpre	1.132	0.360	3.142	0.002
RBA.post	0.187	0.245	0.762	0.446
HRS.post ~~				
PS.rpre	-0.056	0.220	-0.253	0.800
PS.post	2.069	0.788	2.626	0.009
PRB.rpre	0.440	0.270	1.633	0.103
PRB.post	1.039	0.452	2.300	0.021
RBA.rpre	0.331	0.216	1.536	0.125
RBA.post	1.465	0.572	2.561	0.010
PS.rpre ~~				
PS.post	0.006	0.092	0.070	0.944
PRB.rpre	0.405	0.101	3.996	0.000
PRB.post	-0.050	0.069	-0.716	0.474
RBA.rpre	0.334	0.107	3.107	0.002
RBA.post	0.015	0.089	0.170	0.865
PS.post ~~				
PRB.rpre	0.174	0.097	1.788	0.074
PRB.post	0.427	0.105	4.051	0.000
RBA.rpre	0.085	0.078	1.097	0.273
RBA.post	0.575	0.125	4.600	0.000
PRB.rpre ~~				
PRB.post	0.230	0.073	3.165	0.002
RBA.rpre	0.558	0.118	4.732	0.000
RBA.post	0.226	0.080	2.809	0.005
PRB.post ~~				
RBA.rpre	0.094	0.055	1.706	0.088
RBA.post	0.483	0.103	4.671	0.000
RBA.rpre ~~				
RBA.post	0.171	0.067	2.528	0.011
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.955	0.813	1.175	0.240
.Communicate_Before.3n ~~				
.Communicate.3n	0.364	0.191	1.903	0.057
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.511	0.348	1.466	0.143
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.038	0.115	0.326	0.744
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.082	0.606	1.784	0.074
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.614	0.370	1.658	0.097
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.247	0.250	0.990	0.322
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.033	0.079	0.423	0.672

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.564	0.217	2.596	0.009
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.202	0.140	1.445	0.148
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.115	0.337	3.306	0.001
.Fights_Before.3n ~~				
.Fights.3n	0.187	0.084	2.220	0.026
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.477	0.286	1.671	0.095
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.639	0.252	2.537	0.011
Std.lv Std.all				

0.147	0.147
0.791	0.791
0.068	0.068
0.595	0.595
-0.112	-0.112
0.644	0.644
0.096	0.096

-0.029	-0.029
1.018	1.018
0.230	0.230
0.696	0.696
0.213	0.213
0.854	0.854

0.008	0.008
0.550	0.550
-0.086	-0.086
0.558	0.558
0.023	0.023

0.223	0.223
0.701	0.701
0.135	0.135
0.821	0.821

0.402	0.402
0.936	0.936
0.343	0.343

0.201	0.201
0.939	0.939

0.319	0.319
-------	-------

0.955	0.783
0.364	0.738
0.511	0.445
0.038	0.118
1.082	1.437
0.614	0.992
0.247	1.014
0.033	0.179
0.564	1.101
0.202	0.442
1.115	1.367
0.187	0.615
0.477	0.584
0.639	0.923

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	4.813	1.762	2.732	0.006	2.157	2.157
PS.rpre	-1.065	0.149	-7.171	0.000	-1.240	-1.240
PS.post	1.050	0.104	10.086	0.000	1.153	1.153
PRB.rpre	-0.610	0.098	-6.221	0.000	-0.711	-0.711
PRB.post	0.590	0.087	6.796	0.000	0.883	0.883
RBA.rpre	-0.498	0.083	-5.990	0.000	-0.716	-0.716
RBA.post	0.723	0.099	7.283	0.000	0.940	0.940
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.642	0.390	1.646	0.100	0.642	0.236
H_R_B.3 (V1t2)	4.610	1.589	2.902	0.004	4.610	1.696
H_R.3 1 (V1t1)	0.642	0.390	1.646	0.100	0.642	0.252
H_R.3 2 (V1t2)	4.610	1.589	2.902	0.004	4.610	1.813
C_B.3 1 (V2t1)	0.329	0.181	1.821	0.069	0.329	0.209
C_B.3 2 (V2t2)	2.348	0.387	6.063	0.000	2.348	1.489
Cmm.3 1 (V2t1)	0.329	0.181	1.821	0.069	0.329	0.278
Cmm.3 2 (V2t2)	2.348	0.387	6.063	0.000	2.348	1.983
CM_B.3 (V3t1)	0.775	0.280	2.772	0.006	0.775	0.387
CM_B.3 (V3t2)	3.580	0.661	5.415	0.000	3.580	1.786
CnM.3 1 (V3t1)	0.775	0.280	2.772	0.006	0.775	0.405
CnM.3 2 (V3t2)	3.580	0.661	5.415	0.000	3.580	1.869
RP_B.3 (V4t1)	-0.407	0.090	-4.512	0.000	-0.407	-0.414
RP_B.3 (V4t2)	1.109	0.115	9.626	0.000	1.109	1.129
RgP.3 1 (V4t1)	-0.407	0.090	-4.512	0.000	-0.407	-0.361
RgP.3 2 (V4t2)	1.109	0.115	9.626	0.000	1.109	0.982
LP_B.3 (V5t1)	-2.050	0.169	-12.121	0.000	-2.050	-0.742
LP_B.3 (V5t2)	2.353	0.160	14.722	0.000	2.353	0.852
LrP.3 1 (V5t1)	-2.050	0.169	-12.121	0.000	-2.050	-0.688
LrP.3 2 (V5t2)	2.353	0.160	14.722	0.000	2.353	0.790
PR_B.3 (V6t1)	-1.063	0.143	-7.448	0.000	-1.063	-0.552
PR_B.3 (V6t2)	1.752	0.117	15.036	0.000	1.752	0.909
PcR.3 1 (V6t1)	-1.063	0.143	-7.448	0.000	-1.063	-0.524
PcR.3 2 (V6t2)	1.752	0.117	15.036	0.000	1.752	0.863
WS_B.3 (V7t1)	-1.333	0.112	-11.944	0.000	-1.333	-0.752
WS_B.3 (V7t2)	1.497	0.090	16.556	0.000	1.497	0.845

WrS.3 1 (V7t1)	-1.333	0.112	-11.944	0.000	-1.333	-0.797
WrS.3 2 (V7t2)	1.497	0.090	16.556	0.000	1.497	0.895
LGU_B.3 (V8t1)	-0.562	0.075	-7.469	0.000	-0.562	-0.593
LGU_B.3 (V8t2)	0.497	0.075	6.648	0.000	0.497	0.524
LGU.3 1 (V8t1)	-0.562	0.075	-7.469	0.000	-0.562	-0.693
LGU.3 2 (V8t2)	0.497	0.075	6.648	0.000	0.497	0.613
PR_B.3 (V9t1)	-0.910	0.128	-7.135	0.000	-0.910	-0.522
PR_B.3 (V9t2)	0.561	0.104	5.383	0.000	0.561	0.322
PsR.3 1 (V9t1)	-0.910	0.128	-7.135	0.000	-0.910	-0.772
PsR.3 2 (V9t2)	0.561	0.104	5.383	0.000	0.561	0.476
GAP_B.3 (V101)	-0.859	0.089	-9.615	0.000	-0.859	-0.575
GAP_B.3 (V102)	0.491	0.089	5.534	0.000	0.491	0.329
GAP.3 1 (V101)	-0.859	0.089	-9.615	0.000	-0.859	-0.740
GAP.3 2 (V102)	0.491	0.089	5.534	0.000	0.491	0.424
FAL_B.3 (V111)	-1.482	0.127	-11.633	0.000	-1.482	-0.603
FAL_B.3 (V112)	0.859	0.119	7.206	0.000	0.859	0.350
FAL.3 1 (V111)	-1.482	0.127	-11.633	0.000	-1.482	-0.779
FAL.3 2 (V112)	0.859	0.119	7.206	0.000	0.859	0.452
F_B.3 1 (V121)	-0.583	0.088	-6.597	0.000	-0.583	-0.633
F_B.3 2 (V122)	0.372	0.088	4.232	0.000	0.372	0.404
Fgh.3 1 (V121)	-0.583	0.088	-6.597	0.000	-0.583	-0.633
Fgh.3 2 (V122)	0.372	0.088	4.232	0.000	0.372	0.405
FH_B.3 (V131)	-1.411	0.095	-14.824	0.000	-1.411	-0.878
FH_B.3 (V132)	0.616	0.115	5.338	0.000	0.616	0.383
FlH.3 1 (V131)	-1.411	0.095	-14.824	0.000	-1.411	-0.821
FlH.3 2 (V132)	0.616	0.115	5.338	0.000	0.616	0.358
RW_B.3 (V141)	-1.616	0.102	-15.882	0.000	-1.616	-0.924
RW_B.3 (V142)	0.496	0.106	4.688	0.000	0.496	0.284
RgW.3 1 (V141)	-1.616	0.102	-15.882	0.000	-1.616	-0.945
RgW.3 2 (V142)	0.496	0.106	4.688	0.000	0.496	0.290

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.386	4.448	1.436	0.151	1.000	1.000
HRS.post	4.978	3.926	1.268	0.205	1.000	1.000
PS.rpre	0.738	0.190	3.888	0.000	1.000	1.000
PS.post	0.829	0.184	4.517	0.000	1.000	1.000
PRB.rpre	0.734	0.152	4.830	0.000	1.000	1.000
PRB.post	0.447	0.111	4.033	0.000	1.000	1.000
RBA.rpre	0.485	0.125	3.882	0.000	1.000	1.000
RBA.post	0.591	0.129	4.598	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.135
.Commnct_Bfr.3n	1.000				1.000	0.402
.CnflctMngm_B.3	1.000				1.000	0.249
.RghtPrtnr_Bf.3	0.228	0.096	2.375	0.018	0.228	0.236
.LrnPrtnr_Bfr.3	0.591	0.521	1.134	0.257	0.591	0.077
.PcRltnshp_Bf.3	0.609	0.242	2.520	0.012	0.609	0.164
.WrnngSgns_Bf.3	0.725	0.268	2.707	0.007	0.725	0.231

.LrndGrwngU_B.3	0.165	0.056	2.928	0.003	0.165	0.183
.PstRltnshp_B.3	1.137	0.204	5.572	0.000	1.137	0.374
.GtAlngPrnt_B.3	0.595	0.136	4.375	0.000	0.595	0.267
.FrndshpsAL_B.3	1.095	0.261	4.197	0.000	1.095	0.182
.Fights_Befr.3n	0.364	0.127	2.869	0.004	0.364	0.429
.FlngsHrt_Bfr.3	0.823	0.173	4.756	0.000	0.823	0.319
.RghtndWrng_B.3	1.040	0.231	4.502	0.000	1.040	0.340
.Healthy_Rel.3n	1.487	1.101	1.351	0.177	1.487	0.230
.Communicate.3n	0.243	0.100	2.417	0.016	0.243	0.173
.CnflctMngmnt.3	1.315	0.487	2.699	0.007	1.315	0.358
.RightPartnr.3n	0.447	0.113	3.963	0.000	0.447	0.350
.LearnPartnr.3n	0.958	0.335	2.864	0.004	0.958	0.108
.PaceRltnshp.3n	0.628	0.171	3.667	0.000	0.628	0.152
.WarningSgns.3n	0.082	0.112	0.736	0.462	0.082	0.029
.LrndGrwngUp.3n	0.211	0.068	3.086	0.002	0.211	0.321
.PstRltnshps.3n	0.231	0.077	3.005	0.003	0.231	0.166
.GtAlngPrnts.3n	0.350	0.091	3.856	0.000	0.350	0.260
.FrndshpsArLk.3	0.607	0.126	4.807	0.000	0.607	0.168
.Fights.3n	0.255	0.070	3.620	0.000	0.255	0.301
.FeelingsHrt.3n	0.810	0.232	3.488	0.000	0.810	0.274
.RightndWrng.3n	0.461	0.142	3.237	0.001	0.461	0.157

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.368				0.368	1.000
Commnct_Bfr.3n	0.634				0.634	1.000
CnflctMngm_B.3	0.499				0.499	1.000
Healthy_Rel.3n	0.393				0.393	1.000
Communicate.3n	0.844				0.844	1.000
CnflctMngmnt.3	0.522				0.522	1.000
RghtPrtnr_Bf.3	1.018				1.018	1.000
LrnPrtnr_Bfr.3	0.362				0.362	1.000
PcRltnshp_Bf.3	0.519				0.519	1.000
WrnngSgns_Bf.3	0.564				0.564	1.000
RightPartnr.3n	0.885				0.885	1.000
LearnPartnr.3n	0.336				0.336	1.000
PaceRltnshp.3n	0.493				0.493	1.000
WarningSgns.3n	0.598				0.598	1.000
LrndGrwngU_B.3	1.055				1.055	1.000
PstRltnshp_B.3	0.573				0.573	1.000
GtAlngPrnt_B.3	0.670				0.670	1.000
FrndshpsAL_B.3	0.407				0.407	1.000
LrndGrwngUp.3n	1.232				1.232	1.000
PstRltnshps.3n	0.848				0.848	1.000
GtAlngPrnts.3n	0.862				0.862	1.000
FrndshpsArLk.3	0.526				0.526	1.000
Fights_Befr.3n	1.086				1.086	1.000
FlngsHrt_Bfr.3	0.622				0.622	1.000

RghtndWrng_B.3	0.571	0.571	1.000
Fights.3n	1.087	1.087	1.000
FeelingsHrt.3n	0.582	0.582	1.000
RightndWrng.3n	0.584	0.584	1.000

6.4.7 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi
1	HRS.post	=~	RightPartner.3n	437.03786
2	HRS.post	=~	PaceRelationship.3n	238.08580
3	PRB.post	=~	Communicate.3n	106.27067
4	HRS.post	=~	WarningSigns.3n	72.63602
5	ConflictManagement.3n	~~	RightPartner.3n	34.06210
6	RBA.post	=~	LearnPartner.3n	31.75921
7	PRB.post	=~	Healthy_Rel.3n	21.40648
8	Healthy_Rel.3n	~~	PaceRelationship.3n	15.58734
9	PRB.rpre	=~	PastRelationships.3n	14.62649
10	RBA.rpre	=~	PastRelationships.3n	12.90703
11	PRB.post	=~	PaceRelationship_Before.3n	10.50616
12	RBA.post	=~	PaceRelationship_Before.3n	10.33824
	epc	sepc.lv	sepc.all	sepc.nox
1	6.7503465	15.0606264	13.3342869	13.3342869
2	13.8014539	30.7922771	15.1662039	15.1662039
3	5.6154533	3.7550226	3.1711073	3.1711073
4	2.9105510	6.4936994	3.8834064	3.8834064
5	0.8013386	0.8013386	1.0458605	1.0458605
6	4.5279453	3.4811468	1.1683782	1.1683782
7	2.8340401	1.8951070	0.7453525	0.7453525
8	1.4624994	1.4624994	1.5136636	1.5136636
9	-0.3100978	-0.2657171	-0.2253190	-0.2253190
10	-0.3484428	-0.2425532	-0.2056768	-0.2056768
11	0.5071125	0.3391033	0.1758807	0.1758807
12	0.4176330	0.3210820	0.1665337	0.1665337

6.4.8 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.load, Fit.Rcomb.model.c.thresh)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c.load	304			222.32			
Fit.Rcomb.model.c.thresh	314			230.75	14.671	10	0.1445

6.4.9 Unique Factor Invariant

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 131 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	267.407	400.756
Degrees of freedom	338	338
P-value (Chi-square)	0.998	0.011
Scaling correction factor		1.454
Shift parameter		216.881
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.985
Tucker-Lewis Index (TLI)	1.004	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.041	
90 Percent Confidence Interval	0.000	0.000	0.021 0.056
P-value RMSEA <= 0.05	1.000	0.824	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.082	0.082
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~							
H_R_B.3 (V1L)		1.035	0.192	5.378	0.000	2.031	0.897
Cmm_B.3		1.000				1.963	0.891
CnM_B.3 (V3L)		0.754	0.123	6.156	0.000	1.480	0.829
HRS.post =~							
Hlt_R.3 (V1L)		1.035	0.192	5.378	0.000	1.880	0.883
Cmmnc.3		1.000				1.817	0.876
CnflM.3 (V3L)		0.754	0.123	6.156	0.000	1.370	0.808
PS.rpre =~							
RgP_B.3 (V4L)		1.000				1.565	0.843
LrP_B.3 (V5L)		2.091	0.473	4.419	0.000	3.273	0.956
PcR_B.3 (V6L)		1.617	0.287	5.640	0.000	2.532	0.930
WrS_B.3 (V7L)		1.217	0.299	4.072	0.000	1.906	0.885
PS.post =~							
RghtP.3 (V4L)		1.000				1.434	0.820
LrnPr.3 (V5L)		2.091	0.473	4.419	0.000	2.997	0.949
PcRlt.3 (V6L)		1.617	0.287	5.640	0.000	2.319	0.918
WrnnS.3 (V7L)		1.217	0.299	4.072	0.000	1.745	0.983
PRB.rpre =~							
LGU_B.3 (V8L)		1.000				1.716	0.864
PsR_B.3 (V9L)		1.054	0.155	6.795	0.000	1.810	0.875
GAP_B.3 (V10L)		0.990	0.164	6.043	0.000	1.700	0.862
FAL_B.3 (V11L)		1.306	0.194	6.734	0.000	2.242	0.913
PRB.post =~							
LrnGU.3 (V8L)		1.000				1.654	0.856
PstRl.3 (V9L)		1.054	0.155	6.795	0.000	1.744	0.868
GtAlP.3 (V10L)		0.990	0.164	6.043	0.000	1.638	0.854
FrnAL.3 (V11L)		1.306	0.194	6.734	0.000	2.160	0.907
RBA.rpre =~							
Fgh_B.3 (V12L)		1.000				1.197	0.768
FlH_B.3 (V13L)		1.155	0.164	7.043	0.000	1.383	0.810
RgW_B.3 (V14L)		1.329	0.183	7.272	0.000	1.592	0.847
RBA.post =~							
Fghts.3 (V12L)		1.000				1.466	0.826
FlngH.3 (V13L)		1.155	0.164	7.043	0.000	1.694	0.861
RghtW.3 (V14L)		1.329	0.183	7.272	0.000	1.949	0.890

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.526	0.426	1.235	0.217
PS.rpre	2.406	0.679	3.545	0.000

PS.post	0.210	0.314	0.668	0.504
PRB.rpre	1.933	0.555	3.481	0.000
PRB.post	-0.358	0.396	-0.906	0.365
RBA.rpre	1.465	0.461	3.178	0.001
RBA.post	0.291	0.352	0.825	0.410
HRS.post ~~				
PS.rpre	-0.084	0.327	-0.258	0.796
PS.post	2.682	0.606	4.427	0.000
PRB.rpre	0.714	0.418	1.709	0.087
PRB.post	2.136	0.590	3.619	0.000
RBA.rpre	0.463	0.308	1.504	0.133
RBA.post	2.328	0.572	4.069	0.000
PS.rpre ~~				
PS.post	0.018	0.265	0.067	0.947
PRB.rpre	1.452	0.370	3.919	0.000
PRB.post	-0.221	0.313	-0.707	0.480
RBA.rpre	1.036	0.312	3.325	0.001
RBA.post	0.059	0.313	0.189	0.850
PS.post ~~				
PRB.rpre	0.544	0.315	1.730	0.084
PRB.post	1.679	0.489	3.431	0.001
RBA.rpre	0.229	0.206	1.111	0.267
RBA.post	1.742	0.453	3.848	0.000
PRB.rpre ~~				
PRB.post	1.146	0.449	2.554	0.011
RBA.rpre	1.877	0.445	4.221	0.000
RBA.post	0.861	0.359	2.400	0.016
PRB.post ~~				
RBA.rpre	0.405	0.253	1.600	0.109
RBA.post	2.345	0.572	4.102	0.000
RBA.rpre ~~				
RBA.post	0.561	0.264	2.125	0.034
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.683	0.396	1.728	0.084
.Communicate_Before.3n ~~				
.Communicate.3n	0.838	0.415	2.017	0.044
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.414	0.282	1.468	0.142
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.111	0.333	0.334	0.738
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.425	0.884	1.612	0.107
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	1.079	0.743	1.453	0.146
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.320	0.359	0.892	0.372
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.170	0.402	0.422	0.673

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	1.073	0.480	2.237	0.025
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.438	0.296	1.479	0.139
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.379	0.459	3.003	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.609	0.261	2.334	0.020
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.584	0.376	1.551	0.121
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.866	0.381	2.274	0.023
Std.lv Std.all				

0.147	0.147
0.783	0.783
0.075	0.075
0.574	0.574
-0.110	-0.110
0.623	0.623
0.101	0.101

-0.030	-0.030
1.030	1.030
0.229	0.229
0.711	0.711
0.213	0.213
0.874	0.874

0.008	0.008
0.540	0.540
-0.085	-0.085
0.553	0.553
0.026	0.026

0.221	0.221
0.708	0.708
0.133	0.133
0.829	0.829

0.404	0.404
0.913	0.913
0.342	0.342

0.205	0.205
0.967	0.967

0.320	0.320
-------	-------

0.683	0.683
0.838	0.838
0.414	0.414
0.111	0.111
1.425	1.425
1.079	1.079
0.320	0.991
0.170	0.170
1.073	1.073
0.438	0.438
1.379	1.379
0.609	0.609
0.584	0.584
0.866	0.866

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	3.794	0.544	6.979	0.000	2.088	2.088
PS.rpre	-1.973	0.297	-6.653	0.000	-1.261	-1.261
PS.post	1.603	0.210	7.621	0.000	1.118	1.118
PRB.rpre	-1.203	0.223	-5.402	0.000	-0.701	-0.701
PRB.post	1.492	0.237	6.287	0.000	0.902	0.902
RBA.rpre	-0.834	0.154	-5.435	0.000	-0.697	-0.697
RBA.post	1.424	0.223	6.396	0.000	0.971	0.971
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.513	0.283	1.815	0.070	0.513	0.227
H_R_B.3 (V1t2)	3.775	0.580	6.507	0.000	3.775	1.668
H_R.3 1 (V1t1)	0.513	0.283	1.815	0.070	0.513	0.241
H_R.3 2 (V1t2)	3.775	0.580	6.507	0.000	3.775	1.773
C_B.3 1 (V2t1)	0.401	0.264	1.516	0.130	0.401	0.182
C_B.3 2 (V2t2)	3.713	0.521	7.133	0.000	3.713	1.686
Cmm.3 1 (V2t1)	0.401	0.264	1.516	0.130	0.401	0.193
Cmm.3 2 (V2t2)	3.713	0.521	7.133	0.000	3.713	1.790
CM_B.3 (V3t1)	0.662	0.228	2.901	0.004	0.662	0.370
CM_B.3 (V3t2)	3.122	0.322	9.691	0.000	3.122	1.747
CnM.3 1 (V3t1)	0.662	0.228	2.901	0.004	0.662	0.390
CnM.3 2 (V3t2)	3.122	0.322	9.691	0.000	3.122	1.840
RP_B.3 (V4t1)	-0.705	0.158	-4.464	0.000	-0.705	-0.379
RP_B.3 (V4t2)	1.726	0.193	8.929	0.000	1.726	0.929
RgP.3 1 (V4t1)	-0.705	0.158	-4.464	0.000	-0.705	-0.403
RgP.3 2 (V4t2)	1.726	0.193	8.929	0.000	1.726	0.988
LP_B.3 (V5t1)	-2.504	0.526	-4.758	0.000	-2.504	-0.732
LP_B.3 (V5t2)	2.463	0.469	5.247	0.000	2.463	0.720
LrP.3 1 (V5t1)	-2.504	0.526	-4.758	0.000	-2.504	-0.793
LrP.3 2 (V5t2)	2.463	0.469	5.247	0.000	2.463	0.779
PR_B.3 (V6t1)	-1.532	0.268	-5.719	0.000	-1.532	-0.563
PR_B.3 (V6t2)	2.144	0.310	6.911	0.000	2.144	0.788
PcR.3 1 (V6t1)	-1.532	0.268	-5.719	0.000	-1.532	-0.607
PcR.3 2 (V6t2)	2.144	0.310	6.911	0.000	2.144	0.849
WS_B.3 (V7t1)	-1.628	0.387	-4.210	0.000	-1.628	-0.756
WS_B.3 (V7t2)	1.557	0.365	4.269	0.000	1.557	0.723

WrS.3 1 (V7t1)	-1.628	0.387	-4.210	0.000	-1.628	-0.917
WrS.3 2 (V7t2)	1.557	0.365	4.269	0.000	1.557	0.877
LGU_B.3 (V8t1)	-1.140	0.155	-7.355	0.000	-1.140	-0.574
LGU_B.3 (V8t2)	1.227	0.161	7.622	0.000	1.227	0.618
LGU.3 1 (V8t1)	-1.140	0.155	-7.355	0.000	-1.140	-0.590
LGU.3 2 (V8t2)	1.227	0.161	7.622	0.000	1.227	0.635
PR_B.3 (V9t1)	-1.294	0.195	-6.622	0.000	-1.294	-0.626
PR_B.3 (V9t2)	0.826	0.156	5.303	0.000	0.826	0.399
PsR.3 1 (V9t1)	-1.294	0.195	-6.622	0.000	-1.294	-0.643
PsR.3 2 (V9t2)	0.826	0.156	5.303	0.000	0.826	0.411
GAP_B.3 (V101)	-1.219	0.155	-7.886	0.000	-1.219	-0.618
GAP_B.3 (V102)	0.730	0.141	5.196	0.000	0.730	0.370
GAP.3 1 (V101)	-1.219	0.155	-7.886	0.000	-1.219	-0.635
GAP.3 2 (V102)	0.730	0.141	5.196	0.000	0.730	0.381
FAL_B.3 (V111)	-1.588	0.179	-8.871	0.000	-1.588	-0.647
FAL_B.3 (V112)	0.983	0.161	6.098	0.000	0.983	0.400
FAL.3 1 (V111)	-1.588	0.179	-8.871	0.000	-1.588	-0.667
FAL.3 2 (V112)	0.983	0.161	6.098	0.000	0.983	0.413
F_B.3 1 (V121)	-1.010	0.132	-7.657	0.000	-1.010	-0.648
F_B.3 2 (V122)	0.691	0.127	5.425	0.000	0.691	0.443
Fgh.3 1 (V121)	-1.010	0.132	-7.657	0.000	-1.010	-0.569
Fgh.3 2 (V122)	0.691	0.127	5.425	0.000	0.691	0.389
FH_B.3 (V131)	-1.466	0.145	-10.140	0.000	-1.466	-0.859
FH_B.3 (V132)	0.740	0.142	5.229	0.000	0.740	0.434
FlH.3 1 (V131)	-1.466	0.145	-10.140	0.000	-1.466	-0.745
FlH.3 2 (V132)	0.740	0.142	5.229	0.000	0.740	0.376
RW_B.3 (V141)	-1.826	0.167	-10.928	0.000	-1.826	-0.971
RW_B.3 (V142)	0.570	0.128	4.462	0.000	0.570	0.303
RgW.3 1 (V141)	-1.826	0.167	-10.928	0.000	-1.826	-0.833
RgW.3 2 (V142)	0.570	0.128	4.462	0.000	0.570	0.260

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	3.853	1.465	2.629	0.009	1.000	1.000
HRS.post	3.301	0.905	3.646	0.000	1.000	1.000
PS.rpre	2.451	0.663	3.696	0.000	1.000	1.000
PS.post	2.055	0.618	3.328	0.001	1.000	1.000
PRB.rpre	2.946	0.836	3.522	0.000	1.000	1.000
PRB.post	2.736	0.878	3.116	0.002	1.000	1.000
RBA.rpre	1.434	0.430	3.334	0.001	1.000	1.000
RBA.post	2.150	0.627	3.430	0.001	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.195
.Commnct_Bfr.3n	1.000				1.000	0.206
.CnflctMngm_B.3	1.000				1.000	0.313
.RghtPrtnr_Bf.3	1.000				1.000	0.290
.LrnPrtnr_Bfr.3	1.000				1.000	0.085
.PcRltnshp_Bf.3	1.000				1.000	0.135
.WrnngSgns_Bf.3	1.000				1.000	0.216

.LrndGrwngU_B.3	1.000				1.000	0.253
.PstRltnshp_B.3	1.000				1.000	0.234
.GtAlngPrnt_B.3	1.000				1.000	0.257
.FrndshpsAL_B.3	1.000				1.000	0.166
.Fights_Befr.3n	1.000				1.000	0.411
.FlngsHrt_Bfr.3	1.000				1.000	0.343
.RghtndWrng_B.3	1.000				1.000	0.283
.Healthy_Rel.3n	1.000				1.000	0.220
.Communicate.3n	1.000				1.000	0.232
.CnflctMngmnt.3	1.000				1.000	0.348
.RightPartnr.3n	1.000				1.000	0.327
.LearnPartnr.3n	1.000				1.000	0.100
.PaceRltnshp.3n	1.000				1.000	0.157
.WarningSgns.3n	0.104	0.137	0.763	0.446	0.104	0.033
.LrndGrwngUp.3n	1.000				1.000	0.268
.PstRltnshps.3n	1.000				1.000	0.247
.GtAlngPrnts.3n	1.000				1.000	0.272
.FrndshpsArLk.3	1.000				1.000	0.176
.Fights.3n	1.000				1.000	0.317
.FeelingsHrt.3n	1.000				1.000	0.258
.RightndWrng.3n	1.000				1.000	0.208

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.442				0.442	1.000
Commnct_Bfr.3n	0.454				0.454	1.000
CnflctMngm_B.3	0.560				0.560	1.000
Healthy_Rel.3n	0.470				0.470	1.000
Communicate.3n	0.482				0.482	1.000
CnflctMngmnt.3	0.590				0.590	1.000
RghtPrtnr_Bf.3	0.538				0.538	1.000
LrnPrtnr_Bfr.3	0.292				0.292	1.000
PcRltnshp_Bf.3	0.367				0.367	1.000
WrngSgns_Bf.3	0.465				0.465	1.000
RightPartnr.3n	0.572				0.572	1.000
LearnPartnr.3n	0.316				0.316	1.000
PaceRltnshp.3n	0.396				0.396	1.000
WarningSgns.3n	0.563				0.563	1.000
LrndGrwngU_B.3	0.503				0.503	1.000
PstRltnshp_B.3	0.484				0.484	1.000
GtAlngPrnt_B.3	0.507				0.507	1.000
FrndshpsAL_B.3	0.407				0.407	1.000
LrndGrwngUp.3n	0.517				0.517	1.000
PstRltnshps.3n	0.497				0.497	1.000
GtAlngPrnts.3n	0.521				0.521	1.000
FrndshpsArLk.3	0.420				0.420	1.000
Fights_Befr.3n	0.641				0.641	1.000
FlngsHrt_Bfr.3	0.586				0.586	1.000

RghtndWrng_B.3	0.532	0.532	1.000
Fights.3n	0.563	0.563	1.000
FeelingsHrt.3n	0.508	0.508	1.000
RightndWrng.3n	0.456	0.456	1.000

6.4.10 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.thresh, Fit.Rcomb.model.c.uniq)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c.thresh	314		230.75				
Fit.Rcomb.model.c.uniq	338		267.41	52.246		24	0.0007267

Fit.Rcomb.model.c.thresh

Fit.Rcomb.model.c.uniq ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.4.11 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi
1	PRB.post	=~	Communicate.3n	149.30042
2	HRS.post	=~	RightPartner.3n	98.21402
3	Communicate.3n	~~	LearnPartner.3n	62.11416
4	HRS.post	=~	LearnPartner.3n	40.25923
5	Healthy_Rel.3n	~~	Healthy_Rel.3n	32.60546
6	PS.post	=~	Healthy_Rel.3n	31.00037
7	LearnPartner.3n	~~	LearnPartner.3n	28.57890
8	PS.post	=~	RightPartner.3n	28.07451
9	PS.post	=~	ConflictManagement.3n	23.94081
10	ConflictManagement.3n	~~	RightPartner.3n	23.71559
11	ConflictManagement.3n	~~	ConflictManagement.3n	18.20641
12	HRS.post	=~	WarningSigns.3n	15.32872
13	PaceRelationship.3n	~~	PaceRelationship.3n	15.29772
14	HRS.rpre	=~	PastRelationships_Before.3n	14.76746
15	PastRelationships.3n	~~	PastRelationships.3n	13.57652
16	Communicate_Before.3n	~~	Communicate_Before.3n	13.37594

17	RBA.rpre ==	Communicate_Before.3n	12.63158
18	RBA.rpre ==	PastRelationships_Before.3n	12.55824
19	PastRelationships_Before.3n ==	PastRelationships_Before.3n	12.55201
20	PRB.rpre ==	PastRelationships.3n	11.95017
21	RBA.rpre ==	Healthy_Rel_Before.3n	11.71889
22	PRB.rpre ==	Healthy_Rel_Before.3n	11.64073
23	RBA.post ==	LearnPartner.3n	11.37479
24	PRB.rpre ==	Communicate_Before.3n	11.03232
25	PRB.post ==	PaceRelationship_Before.3n	10.85531
26	PS.post ==	PastRelationships.3n	10.65765
27	HRS.post ==	PastRelationships.3n	10.63262
28	PS.rpre ==	Communicate_Before.3n	10.60403
29	RBA.post ==	PaceRelationship_Before.3n	10.46838

	epc	sepc.lv	sepc.all	sepc.nox
1	3.1821249	5.2634360	2.5378332	2.5378332
2	3.8253309	6.9505611	3.9763100	3.9763100
3	2.7620198	2.7620198	2.7620198	2.7620198
4	1.8505102	3.3623454	1.0641679	1.0641679
5	-3.4294311	-1.0000000	-0.2204907	-0.2204907
6	1.3008613	1.8650372	0.8757549	0.8757549
7	-5.4702474	-1.0000000	-0.1001695	-0.1001695
8	3.4502148	4.9465525	2.8298472	2.8298472
9	0.7846461	1.1249425	0.6631706	0.6631706
10	0.8225917	0.8225917	0.8225917	0.8225917
11	-1.7242269	-1.0000000	-0.3475280	-0.3475280
12	0.6349425	1.1536798	0.6500134	0.6500134
13	-2.5176131	-1.0000000	-0.1568085	-0.1568085
14	-0.3190732	-0.6262927	-0.3028914	-0.3028914
15	-1.5867942	-1.0000000	-0.2474132	-0.2474132
16	1.8369050	1.0000000	0.2060675	0.2060675
17	-0.5349128	-0.6405578	-0.2907790	-0.2907790
18	-0.8350080	-0.9999217	-0.4835881	-0.4835881
19	1.5163580	1.0000000	0.2338941	0.2338941
20	-0.2323085	-0.3987357	-0.1983337	-0.1983337
21	0.5131743	0.6145260	0.2714322	0.2714322
22	0.3196986	0.5487326	0.2423717	0.2423717
23	0.7815224	1.1459094	0.3626754	0.3626754
24	-0.3112144	-0.5341703	-0.2424848	-0.2424848
25	0.2924825	0.4837846	0.1777075	0.1777075
26	0.3446601	0.4941372	0.2457871	0.2457871
27	0.2484861	0.4514950	0.2245766	0.2245766
28	-0.4788475	-0.7496311	-0.3402925	-0.3402925
29	0.3073757	0.4506904	0.1655510	0.1655510

6.4.12 Unique Factor Invariant 2

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 221 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	272.748	404.011
Degrees of freedom	338	338
P-value (Chi-square)	0.996	0.008
Scaling correction factor		1.458
Shift parameter		216.959
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.004	0.982
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.042	
90 Percent Confidence Interval	0.000 0.000	0.023	0.057
P-value RMSEA <= 0.05	1.000	0.795	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.082	0.082
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
H_R_B.3	1.000				2.567	0.932
Cmm_B.3 (V2L)	0.735	0.306	2.407	0.016	1.888	0.884
CnM_B.3 (V3L)	0.562	0.218	2.575	0.010	1.442	0.822
HRS.post =~						
Hlt_R.3	1.000				2.450	0.871
Cmmnc.3 (V2L)	0.735	0.306	2.407	0.016	1.802	0.874
CnflM.3 (V3L)	0.562	0.218	2.575	0.010	1.377	0.809
PS.rpre =~						
RgP_B.3 (V4L)	1.000				1.514	0.834
LrP_B.3 (V5L)	2.078	0.464	4.480	0.000	3.147	0.953
PcR_B.3 (V6L)	1.646	0.298	5.531	0.000	2.493	0.928
WrS_B.3 (V7L)	2.503	0.719	3.481	0.001	3.790	0.967
PS.post =~						
RghtP.3 (V4L)	1.000				1.446	0.822
LrnPr.3 (V5L)	2.078	0.464	4.480	0.000	3.004	0.949
PcRlt.3 (V6L)	1.646	0.298	5.531	0.000	2.381	0.922
WrnnS.3 (V7L)	2.503	0.719	3.481	0.001	3.619	0.964
PRB.rpre =~						
LGU_B.3 (V8L)	1.000				1.716	0.864
PsR_B.3 (V9L)	1.055	0.155	6.791	0.000	1.811	0.875
GAP_B.3 (V10L)	0.990	0.164	6.050	0.000	1.699	0.862
FAL_B.3 (V11L)	1.307	0.194	6.735	0.000	2.242	0.913
PRB.post =~						
LrnGU.3 (V8L)	1.000				1.654	0.856
PstRl.3 (V9L)	1.055	0.155	6.791	0.000	1.745	0.868
GtAlP.3 (V10L)	0.990	0.164	6.050	0.000	1.637	0.853
FrnAL.3 (V11L)	1.307	0.194	6.735	0.000	2.161	0.908
RBA.rpre =~						
Fgh_B.3 (V12L)	1.000				1.196	0.767
FlH_B.3 (V13L)	1.157	0.164	7.048	0.000	1.384	0.811
RgW_B.3 (V14L)	1.331	0.183	7.286	0.000	1.593	0.847
RBA.post =~						
Fghts.3 (V12L)	1.000				1.465	0.826
FlngH.3 (V13L)	1.157	0.164	7.048	0.000	1.695	0.861
RghtW.3 (V14L)	1.331	0.183	7.286	0.000	1.950	0.890

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.926	1.003	0.923	0.356
PS.rpre	2.962	1.159	2.555	0.011

PS.post	0.269	0.420	0.639	0.523
PRB.rpre	2.506	1.004	2.495	0.013
PRB.post	-0.458	0.517	-0.885	0.376
RBA.rpre	1.898	0.768	2.471	0.013
RBA.post	0.381	0.485	0.786	0.432
HRS.post ~~				
PS.rpre	-0.116	0.426	-0.272	0.786
PS.post	3.683	1.660	2.219	0.026
PRB.rpre	0.967	0.646	1.497	0.134
PRB.post	2.894	1.412	2.050	0.040
RBA.rpre	0.627	0.439	1.429	0.153
RBA.post	3.152	1.503	2.098	0.036
PS.rpre ~~				
PS.post	0.012	0.254	0.048	0.962
PRB.rpre	1.379	0.354	3.899	0.000
PRB.post	-0.208	0.296	-0.702	0.482
RBA.rpre	0.982	0.293	3.349	0.001
RBA.post	0.058	0.296	0.197	0.844
PS.post ~~				
PRB.rpre	0.551	0.319	1.729	0.084
PRB.post	1.701	0.495	3.436	0.001
RBA.rpre	0.230	0.208	1.106	0.269
RBA.post	1.766	0.458	3.853	0.000
PRB.rpre ~~				
PRB.post	1.145	0.448	2.555	0.011
RBA.rpre	1.875	0.444	4.224	0.000
RBA.post	0.860	0.358	2.401	0.016
PRB.post ~~				
RBA.rpre	0.405	0.253	1.601	0.109
RBA.post	2.341	0.570	4.106	0.000
RBA.rpre ~~				
RBA.post	0.560	0.263	2.127	0.033
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	1.079	0.938	1.150	0.250
.Communicate_Before.3n ~~				
.Communicate.3n	0.813	0.402	2.022	0.043
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.410	0.278	1.474	0.140
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.114	0.328	0.349	0.727
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.400	0.855	1.637	0.102
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	1.102	0.753	1.463	0.143
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	1.258	1.376	0.914	0.361
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.170	0.402	0.422	0.673

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	1.074	0.480	2.237	0.025
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.438	0.296	1.479	0.139
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.379	0.459	3.002	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.608	0.260	2.335	0.020
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.584	0.377	1.550	0.121
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.867	0.381	2.273	0.023
Std.lv Std.all				

0.147	0.147
0.762	0.762
0.072	0.072
0.569	0.569
-0.108	-0.108
0.618	0.618
0.101	0.101

-0.031	-0.031
1.040	1.040
0.230	0.230
0.714	0.714
0.214	0.214
0.878	0.878

0.006	0.006
0.531	0.531
-0.083	-0.083
0.542	0.542
0.026	0.026

0.222	0.222
0.711	0.711
0.133	0.133
0.834	0.834

0.404	0.404
0.913	0.913
0.342	0.342

0.205	0.205
0.967	0.967

0.320	0.320
-------	-------

1.079	0.779
0.813	0.813
0.410	0.410
0.114	0.114
1.400	1.400
1.102	1.102
1.258	1.258
0.170	0.170
1.074	1.074
0.438	0.438
1.379	1.379
0.608	0.608
0.584	0.584
0.867	0.867

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	5.018	1.902	2.638	0.008	2.048	2.048
PS.rpre	-1.854	0.274	-6.778	0.000	-1.224	-1.224
PS.post	1.651	0.218	7.586	0.000	1.142	1.142
PRB.rpre	-1.194	0.222	-5.376	0.000	-0.696	-0.696
PRB.post	1.500	0.237	6.320	0.000	0.907	0.907
RBA.rpre	-0.815	0.152	-5.346	0.000	-0.681	-0.681
RBA.post	1.441	0.223	6.472	0.000	0.984	0.984
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.618	0.387	1.595	0.111	0.618	0.224
H_R_B.3 (V1t2)	4.763	1.688	2.822	0.005	4.763	1.729
H_R.3 1 (V1t1)	0.618	0.387	1.595	0.111	0.618	0.219
H_R.3 2 (V1t2)	4.763	1.688	2.822	0.005	4.763	1.692
C_B.3 1 (V2t1)	0.368	0.261	1.410	0.159	0.368	0.172
C_B.3 2 (V2t2)	3.607	0.517	6.979	0.000	3.607	1.688
Cmm.3 1 (V2t1)	0.368	0.261	1.410	0.159	0.368	0.179
Cmm.3 2 (V2t2)	3.607	0.517	6.979	0.000	3.607	1.750
CM_B.3 (V3t1)	0.635	0.225	2.820	0.005	0.635	0.362
CM_B.3 (V3t2)	3.077	0.316	9.732	0.000	3.077	1.753
CnM.3 1 (V3t1)	0.635	0.225	2.820	0.005	0.635	0.373
CnM.3 2 (V3t2)	3.077	0.316	9.732	0.000	3.077	1.808
RP_B.3 (V4t1)	-0.636	0.162	-3.915	0.000	-0.636	-0.350
RP_B.3 (V4t2)	1.776	0.201	8.836	0.000	1.776	0.978
RgP.3 1 (V4t1)	-0.636	0.162	-3.915	0.000	-0.636	-0.362
RgP.3 2 (V4t2)	1.776	0.201	8.836	0.000	1.776	1.010
LP_B.3 (V5t1)	-2.328	0.505	-4.611	0.000	-2.328	-0.705
LP_B.3 (V5t2)	2.538	0.468	5.428	0.000	2.538	0.769
LrP.3 1 (V5t1)	-2.328	0.505	-4.611	0.000	-2.328	-0.735
LrP.3 2 (V5t2)	2.538	0.468	5.428	0.000	2.538	0.802
PR_B.3 (V6t1)	-1.446	0.271	-5.338	0.000	-1.446	-0.538
PR_B.3 (V6t2)	2.251	0.331	6.799	0.000	2.251	0.838
PcR.3 1 (V6t1)	-1.446	0.271	-5.338	0.000	-1.446	-0.560
PcR.3 2 (V6t2)	2.251	0.331	6.799	0.000	2.251	0.872
WS_B.3 (V7t1)	-3.285	0.918	-3.577	0.000	-3.285	-0.838
WS_B.3 (V7t2)	3.176	0.897	3.539	0.000	3.176	0.810

WrS.3 1 (V7t1)	-3.285	0.918	-3.577	0.000	-3.285	-0.875
WrS.3 2 (V7t2)	3.176	0.897	3.539	0.000	3.176	0.846
LGU_B.3 (V8t1)	-1.132	0.155	-7.323	0.000	-1.132	-0.570
LGU_B.3 (V8t2)	1.235	0.161	7.663	0.000	1.235	0.622
LGU.3 1 (V8t1)	-1.132	0.155	-7.323	0.000	-1.132	-0.586
LGU.3 2 (V8t2)	1.235	0.161	7.663	0.000	1.235	0.639
PR_B.3 (V9t1)	-1.285	0.195	-6.588	0.000	-1.285	-0.621
PR_B.3 (V9t2)	0.835	0.156	5.351	0.000	0.835	0.404
PsR.3 1 (V9t1)	-1.285	0.195	-6.588	0.000	-1.285	-0.639
PsR.3 2 (V9t2)	0.835	0.156	5.351	0.000	0.835	0.415
GAP_B.3 (V101)	-1.210	0.154	-7.853	0.000	-1.210	-0.614
GAP_B.3 (V102)	0.739	0.141	5.243	0.000	0.739	0.375
GAP.3 1 (V101)	-1.210	0.154	-7.853	0.000	-1.210	-0.631
GAP.3 2 (V102)	0.739	0.141	5.243	0.000	0.739	0.385
FAL_B.3 (V111)	-1.578	0.179	-8.823	0.000	-1.578	-0.643
FAL_B.3 (V112)	0.994	0.162	6.150	0.000	0.994	0.405
FAL.3 1 (V111)	-1.578	0.179	-8.823	0.000	-1.578	-0.663
FAL.3 2 (V112)	0.994	0.162	6.150	0.000	0.994	0.418
F_B.3 1 (V121)	-0.991	0.131	-7.553	0.000	-0.991	-0.636
F_B.3 2 (V122)	0.709	0.128	5.556	0.000	0.709	0.455
Fgh.3 1 (V121)	-0.991	0.131	-7.553	0.000	-0.991	-0.559
Fgh.3 2 (V122)	0.709	0.128	5.556	0.000	0.709	0.400
FH_B.3 (V131)	-1.445	0.144	-10.044	0.000	-1.445	-0.846
FH_B.3 (V132)	0.762	0.141	5.386	0.000	0.762	0.446
FlH.3 1 (V131)	-1.445	0.144	-10.044	0.000	-1.445	-0.734
FlH.3 2 (V132)	0.762	0.141	5.386	0.000	0.762	0.387
RW_B.3 (V141)	-1.802	0.167	-10.807	0.000	-1.802	-0.958
RW_B.3 (V142)	0.595	0.128	4.652	0.000	0.595	0.316
RgW.3 1 (V141)	-1.802	0.167	-10.807	0.000	-1.802	-0.822
RgW.3 2 (V142)	0.595	0.128	4.652	0.000	0.595	0.271

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.590	4.726	1.394	0.163	1.000	1.000
HRS.post	6.003	4.861	1.235	0.217	1.000	1.000
PS.rpre	2.294	0.611	3.756	0.000	1.000	1.000
PS.post	2.091	0.628	3.327	0.001	1.000	1.000
PRB.rpre	2.945	0.835	3.525	0.000	1.000	1.000
PRB.post	2.734	0.877	3.117	0.002	1.000	1.000
RBA.rpre	1.431	0.429	3.339	0.001	1.000	1.000
RBA.post	2.146	0.625	3.435	0.001	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.132
.Commnct_Bfr.3n	1.000				1.000	0.219
.CnflctMngm_B.3	1.000				1.000	0.325
.RghtPrtnr_Bf.3	1.000				1.000	0.304
.LrnPrtnr_Bfr.3	1.000				1.000	0.092
.PcRltnshp_Bf.3	1.000				1.000	0.139
.WrnngSgns_Bf.3	1.000				1.000	0.065

.LrndGrwngU_B.3	1.000				1.000	0.254
.PstRltnshp_B.3	1.000				1.000	0.234
.GtAlngPrnt_B.3	1.000				1.000	0.257
.FrndshpsAL_B.3	1.000				1.000	0.166
.Fights_Befr.3n	1.000				1.000	0.411
.FlngsHrt_Bfr.3	1.000				1.000	0.343
.RghtndWrng_B.3	1.000				1.000	0.283
.Healthy_Rel.3n	1.918	1.459	1.315	0.189	1.918	0.242
.Communicate.3n	1.000				1.000	0.235
.CnflctMngmnt.3	1.000				1.000	0.345
.RightPartnr.3n	1.000				1.000	0.324
.LearnPartnr.3n	1.000				1.000	0.100
.PaceRltnshp.3n	1.000				1.000	0.150
.WarningSgns.3n	1.000				1.000	0.071
.LrndGrwngUp.3n	1.000				1.000	0.268
.PstRltnshps.3n	1.000				1.000	0.247
.GtAlngPrnts.3n	1.000				1.000	0.272
.FrndshpsArLk.3	1.000				1.000	0.176
.Fights.3n	1.000				1.000	0.318
.FeelingsHrt.3n	1.000				1.000	0.258
.RightndWrng.3n	1.000				1.000	0.208

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.363				0.363	1.000
Commnct_Bfr.3n	0.468				0.468	1.000
CnflctMngm_B.3	0.570				0.570	1.000
Healthy_Rel.3n	0.355				0.355	1.000
Communicate.3n	0.485				0.485	1.000
CnflctMngmnt.3	0.588				0.588	1.000
RghtPrtnr_Bf.3	0.551				0.551	1.000
LrnPrtnr_Bfr.3	0.303				0.303	1.000
PcRltnshp_Bf.3	0.372				0.372	1.000
WrnngSgns_Bf.3	0.255				0.255	1.000
RightPartnr.3n	0.569				0.569	1.000
LearnPartnr.3n	0.316				0.316	1.000
PaceRltnshp.3n	0.387				0.387	1.000
WarningSgns.3n	0.266				0.266	1.000
LrndGrwngU_B.3	0.503				0.503	1.000
PstRltnshp_B.3	0.483				0.483	1.000
GtAlngPrnt_B.3	0.507				0.507	1.000
FrndshpsAL_B.3	0.407				0.407	1.000
LrndGrwngUp.3n	0.517				0.517	1.000
PstRltnshps.3n	0.497				0.497	1.000
GtAlngPrnts.3n	0.521				0.521	1.000
FrndshpsArLk.3	0.420				0.420	1.000
Fights_Befr.3n	0.641				0.641	1.000
FlngsHrt_Bfr.3	0.586				0.586	1.000

RghtndWrng_B.3	0.532	0.532	1.000
Fights.3n	0.564	0.564	1.000
FeelingsHrt.3n	0.508	0.508	1.000
RightndWrng.3n	0.456	0.456	1.000

6.4.13 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.thresh, Fit.Rcomb.model.c.uniq.2)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c.thresh	314		230.75				
Fit.Rcomb.model.c.uniq.2	338		272.75	57.727	24	0.0001328	

Fit.Rcomb.model.c.thresh

Fit.Rcomb.model.c.uniq.2 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.4.14 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs op	rhs	mi
1	Communicate.3n ~~	WarningSigns.3n	266.94472
2	RBA.post ==	LearnPartner.3n	118.99428
3	ConflictManagement.3n ~~	RightPartner.3n	51.50514
4	Healthy_Rel.3n ~~	WarningSigns.3n	31.03620
5	Healthy_Rel.3n ~~	PaceRelationship.3n	30.59012
6	RBA.post ==	WarningSigns.3n	23.74005
7	HRS.rpre ==	PastRelationships_Before.3n	14.66302
8	PastRelationships.3n ~~	PastRelationships.3n	13.52649
9	RBA.post ==	PaceRelationship.3n	13.31764
10	RBA.rpre ==	PastRelationships_Before.3n	12.65642
11	PastRelationships_Before.3n ~~	PastRelationships_Before.3n	12.50299
12	Communicate_Before.3n ~~	Communicate_Before.3n	12.34265
13	PRB.rpre ==	PastRelationships.3n	11.87491
14	RBA.rpre ==	Communicate_Before.3n	11.68638

15		RBA.rpre =~	Healthy_Rel_Before.3n	11.18898
16		PRB.post =~	PaceRelationship_Before.3n	11.01930
17		PRB.rpre =~	Healthy_Rel_Before.3n	10.93482
18		PS.post =~	PastRelationships.3n	10.91702
19		RBA.post =~	PaceRelationship_Before.3n	10.77097
20		HRS.post =~	PastRelationships.3n	10.69105
21		PRB.rpre =~	Communicate_Before.3n	10.11810
22		PS.post =~	PaceRelationship_Before.3n	10.11223
	epc	sepc.lv	sepc.all	sepc.nox
1	33.2272151	33.2272151	33.2272151	33.2272151
2	8.1887813	11.9949261	3.7880791	3.7880791
3	1.8265210	1.8265210	1.8265210	1.8265210
4	6.7589513	6.7589513	4.8800621	4.8800621
5	3.9021962	3.9021962	2.8174430	2.8174430
6	1.8971479	2.7789421	0.7401424	0.7401424
7	-0.2428067	-0.6233240	-0.3013125	-0.3013125
8	-1.5848148	-1.0000000	-0.2472236	-0.2472236
9	0.9579748	1.4032414	0.5434672	0.5434672
10	-0.8404125	-1.0053560	-0.4859852	-0.4859852
11	1.5142654	1.0000000	0.2336719	0.2336719
12	1.7265692	1.0000000	0.2190587	0.2190587
13	-0.2317857	-0.3977514	-0.1977683	-0.1977683
14	-0.5114859	-0.6118726	-0.2863791	-0.2863791
15	0.7351957	0.8794888	0.3192276	0.3192276
16	0.2892181	0.4782273	0.1780245	0.1780245
17	0.4459192	0.7652111	0.2777482	0.2777482
18	0.3491061	0.5048122	0.2510006	0.2510006
19	0.3059203	0.4481121	0.1668138	0.1668138
20	0.1876356	0.4597274	0.2285838	0.2285838
21	-0.2954772	-0.5070480	-0.2373173	-0.2373173
22	0.3229844	0.4670399	0.1738599	0.1738599

6.4.15 Unique Factor Invariant 3

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 222 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	259.946	395.353
Degrees of freedom	337	337
P-value (Chi-square)	0.999	0.016
Scaling correction factor		1.450
Shift parameter		216.094
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.986
Tucker-Lewis Index (TLI)	1.005	0.984
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.040	
90 Percent Confidence Interval	0.000	0.000	0.019 0.055
P-value RMSEA <= 0.05	1.000	0.857	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.081	0.081
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
H_R_B.3	1.000				2.563	0.932
Cmm_B.3 (V2L)	0.736	0.305	2.412	0.016	1.886	0.884
CnM_B.3 (V3L)	0.563	0.218	2.581	0.010	1.443	0.822
HRS.post =~						
Hlt_R.3	1.000				2.447	0.871
Cmmnc.3 (V2L)	0.736	0.305	2.412	0.016	1.800	0.874
CnflM.3 (V3L)	0.563	0.218	2.581	0.010	1.378	0.809
PS.rpre =~						
RgP_B.3 (V4L)	1.000				1.514	0.834
LrP_B.3 (V5L)	2.080	0.465	4.469	0.000	3.149	0.953
PcR_B.3 (V6L)	1.645	0.298	5.528	0.000	2.491	0.928
WrS_B.3 (V7L)	2.493	0.712	3.500	0.000	3.776	0.967
PS.post =~						
RghtP.3 (V4L)	1.000				1.447	0.823
LrnPr.3 (V5L)	2.080	0.465	4.469	0.000	3.010	0.949
PcRlt.3 (V6L)	1.645	0.298	5.528	0.000	2.381	0.922
WrnnS.3 (V7L)	2.493	0.712	3.500	0.000	3.608	0.964
PRB.rpre =~						
LGU_B.3 (V8L)	1.000				1.818	0.876
PsR_B.3 (V9L)	0.704	0.126	5.583	0.000	1.280	0.788
GAP_B.3 (V10L)	1.008	0.168	6.012	0.000	1.833	0.878
FAL_B.3 (V11L)	1.340	0.199	6.743	0.000	2.435	0.925
PRB.post =~						
LrnGU.3 (V8L)	1.000				1.558	0.842
PstRl.3 (V9L)	0.704	0.126	5.583	0.000	1.098	0.914
GtAlP.3 (V10L)	1.008	0.168	6.012	0.000	1.571	0.844
FrnAL.3 (V11L)	1.340	0.199	6.743	0.000	2.088	0.902
RBA.rpre =~						
Fgh_B.3 (V12L)	1.000				1.196	0.767
FlH_B.3 (V13L)	1.155	0.163	7.089	0.000	1.381	0.810
RgW_B.3 (V14L)	1.340	0.184	7.283	0.000	1.602	0.848
RBA.post =~						
Fghts.3 (V12L)	1.000				1.462	0.825
FlngH.3 (V13L)	1.155	0.163	7.089	0.000	1.688	0.860
RghtW.3 (V14L)	1.340	0.184	7.283	0.000	1.959	0.891

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.923	0.999	0.924	0.355
PS.rpre	2.957	1.155	2.560	0.010

PS.post	0.268	0.420	0.639	0.523
PRB.rpre	2.686	1.073	2.503	0.012
PRB.post	-0.439	0.481	-0.913	0.361
RBA.rpre	1.893	0.765	2.475	0.013
RBA.post	0.380	0.483	0.786	0.432
HRS.post ~~				
PS.rpre	-0.116	0.426	-0.272	0.786
PS.post	3.681	1.657	2.222	0.026
PRB.rpre	1.039	0.690	1.507	0.132
PRB.post	2.700	1.322	2.043	0.041
RBA.rpre	0.626	0.437	1.431	0.153
RBA.post	3.142	1.495	2.102	0.036
PS.rpre ~~				
PS.post	0.012	0.254	0.048	0.962
PRB.rpre	1.487	0.388	3.830	0.000
PRB.post	-0.196	0.276	-0.710	0.478
RBA.rpre	0.981	0.293	3.352	0.001
RBA.post	0.058	0.296	0.197	0.844
PS.post ~~				
PRB.rpre	0.584	0.342	1.711	0.087
PRB.post	1.589	0.462	3.441	0.001
RBA.rpre	0.230	0.208	1.106	0.269
RBA.post	1.764	0.458	3.855	0.000
PRB.rpre ~~				
PRB.post	1.136	0.450	2.524	0.012
RBA.rpre	2.003	0.480	4.173	0.000
RBA.post	0.912	0.382	2.389	0.017
PRB.post ~~				
RBA.rpre	0.374	0.237	1.581	0.114
RBA.post	2.180	0.532	4.099	0.000
RBA.rpre ~~				
RBA.post	0.559	0.263	2.128	0.033
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	1.076	0.933	1.153	0.249
.Communicate_Before.3n ~~				
.Communicate.3n	0.812	0.401	2.023	0.043
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.411	0.279	1.474	0.140
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.114	0.328	0.349	0.727
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.403	0.857	1.636	0.102
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	1.102	0.753	1.464	0.143
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	1.250	1.366	0.915	0.360
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.180	0.403	0.448	0.654

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.538	0.241	2.230	0.026
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.449	0.306	1.470	0.142
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.438	0.481	2.988	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.608	0.260	2.338	0.019
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.583	0.375	1.554	0.120
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.870	0.384	2.265	0.023
Std.lv Std.all				

0.147	0.147
0.762	0.762
0.072	0.072
0.577	0.577
-0.110	-0.110
0.618	0.618
0.101	0.101

-0.031	-0.031
1.040	1.040
0.234	0.234
0.708	0.708
0.214	0.214
0.879	0.879

0.006	0.006
0.540	0.540
-0.083	-0.083
0.542	0.542
0.026	0.026

0.222	0.222
0.704	0.704
0.133	0.133
0.834	0.834

0.401	0.401
0.922	0.922
0.343	0.343

0.201	0.201
0.957	0.957

0.320	0.320
-------	-------

1.076	0.778
0.812	0.812
0.411	0.411
0.114	0.114
1.403	1.403
1.102	1.102
1.250	1.250
0.180	0.180
0.538	1.104
0.449	0.449
1.438	1.438
0.608	0.608
0.583	0.583
0.870	0.870

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	5.011	1.895	2.644	0.008	2.048	2.048
PS.rpre	-1.854	0.274	-6.779	0.000	-1.224	-1.224
PS.post	1.653	0.218	7.589	0.000	1.142	1.142
PRB.rpre	-1.258	0.239	-5.266	0.000	-0.692	-0.692
PRB.post	1.421	0.225	6.324	0.000	0.912	0.912
RBA.rpre	-0.816	0.152	-5.360	0.000	-0.683	-0.683
RBA.post	1.436	0.222	6.469	0.000	0.982	0.982
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.617	0.386	1.597	0.110	0.617	0.224
H_R_B.3 (V1t2)	4.756	1.682	2.828	0.005	4.756	1.729
H_R.3 1 (V1t1)	0.617	0.386	1.597	0.110	0.617	0.219
H_R.3 2 (V1t2)	4.756	1.682	2.828	0.005	4.756	1.692
C_B.3 1 (V2t1)	0.367	0.261	1.409	0.159	0.367	0.172
C_B.3 2 (V2t2)	3.604	0.516	6.983	0.000	3.604	1.688
Cmm.3 1 (V2t1)	0.367	0.261	1.409	0.159	0.367	0.178
Cmm.3 2 (V2t2)	3.604	0.516	6.983	0.000	3.604	1.750
CM_B.3 (V3t1)	0.636	0.225	2.821	0.005	0.636	0.362
CM_B.3 (V3t2)	3.079	0.316	9.733	0.000	3.079	1.754
CnM.3 1 (V3t1)	0.636	0.225	2.821	0.005	0.636	0.373
CnM.3 2 (V3t2)	3.079	0.316	9.733	0.000	3.079	1.809
RP_B.3 (V4t1)	-0.636	0.162	-3.914	0.000	-0.636	-0.350
RP_B.3 (V4t2)	1.777	0.201	8.841	0.000	1.777	0.979
RgP.3 1 (V4t1)	-0.636	0.162	-3.914	0.000	-0.636	-0.361
RgP.3 2 (V4t2)	1.777	0.201	8.841	0.000	1.777	1.010
LP_B.3 (V5t1)	-2.330	0.507	-4.598	0.000	-2.330	-0.705
LP_B.3 (V5t2)	2.543	0.470	5.408	0.000	2.543	0.770
LrP.3 1 (V5t1)	-2.330	0.507	-4.598	0.000	-2.330	-0.735
LrP.3 2 (V5t2)	2.543	0.470	5.408	0.000	2.543	0.802
PR_B.3 (V6t1)	-1.445	0.271	-5.334	0.000	-1.445	-0.538
PR_B.3 (V6t2)	2.252	0.331	6.795	0.000	2.252	0.839
PcR.3 1 (V6t1)	-1.445	0.271	-5.334	0.000	-1.445	-0.560
PcR.3 2 (V6t2)	2.252	0.331	6.795	0.000	2.252	0.872
WS_B.3 (V7t1)	-3.273	0.911	-3.594	0.000	-3.273	-0.838
WS_B.3 (V7t2)	3.167	0.890	3.559	0.000	3.167	0.811

WrS.3 1 (V7t1)	-3.273	0.911	-3.594	0.000	-3.273	-0.874
WrS.3 2 (V7t2)	3.167	0.890	3.559	0.000	3.167	0.846
LGU_B.3 (V8t1)	-1.170	0.154	-7.593	0.000	-1.170	-0.564
LGU_B.3 (V8t2)	1.198	0.161	7.434	0.000	1.198	0.577
LGU.3 1 (V8t1)	-1.170	0.154	-7.593	0.000	-1.170	-0.632
LGU.3 2 (V8t2)	1.198	0.161	7.434	0.000	1.198	0.647
PR_B.3 (V9t1)	-0.848	0.179	-4.737	0.000	-0.848	-0.522
PR_B.3 (V9t2)	0.598	0.127	4.698	0.000	0.598	0.368
PsR.3 1 (V9t1)	-0.848	0.179	-4.737	0.000	-0.848	-0.706
PsR.3 2 (V9t2)	0.598	0.127	4.698	0.000	0.598	0.498
GAP_B.3 (V101)	-1.260	0.154	-8.170	0.000	-1.260	-0.603
GAP_B.3 (V102)	0.745	0.141	5.281	0.000	0.745	0.357
GAP.3 1 (V101)	-1.260	0.154	-8.170	0.000	-1.260	-0.676
GAP.3 2 (V102)	0.745	0.141	5.281	0.000	0.745	0.400
FAL_B.3 (V111)	-1.649	0.180	-9.185	0.000	-1.649	-0.626
FAL_B.3 (V112)	1.014	0.160	6.347	0.000	1.014	0.385
FAL.3 1 (V111)	-1.649	0.180	-9.185	0.000	-1.649	-0.712
FAL.3 2 (V112)	1.014	0.160	6.347	0.000	1.014	0.438
F_B.3 1 (V121)	-0.992	0.131	-7.565	0.000	-0.992	-0.637
F_B.3 2 (V122)	0.706	0.128	5.541	0.000	0.706	0.453
Fgh.3 1 (V121)	-0.992	0.131	-7.565	0.000	-0.992	-0.560
Fgh.3 2 (V122)	0.706	0.128	5.541	0.000	0.706	0.399
FH_B.3 (V131)	-1.444	0.143	-10.075	0.000	-1.444	-0.847
FH_B.3 (V132)	0.758	0.141	5.361	0.000	0.758	0.444
FlH.3 1 (V131)	-1.444	0.143	-10.075	0.000	-1.444	-0.736
FlH.3 2 (V132)	0.758	0.141	5.361	0.000	0.758	0.386
RW_B.3 (V141)	-1.812	0.167	-10.821	0.000	-1.812	-0.960
RW_B.3 (V142)	0.595	0.128	4.641	0.000	0.595	0.315
RgW.3 1 (V141)	-1.812	0.167	-10.821	0.000	-1.812	-0.824
RgW.3 2 (V142)	0.595	0.128	4.641	0.000	0.595	0.270

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.570	4.700	1.398	0.162	1.000	1.000
HRS.post	5.987	4.838	1.237	0.216	1.000	1.000
PS.rpre	2.293	0.610	3.760	0.000	1.000	1.000
PS.post	2.094	0.630	3.327	0.001	1.000	1.000
PRB.rpre	3.304	0.972	3.401	0.001	1.000	1.000
PRB.post	2.428	0.771	3.149	0.002	1.000	1.000
RBA.rpre	1.429	0.427	3.345	0.001	1.000	1.000
RBA.post	2.137	0.621	3.443	0.001	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.132
.Commnct_Bfr.3n	1.000				1.000	0.219
.CnflctMngm_B.3	1.000				1.000	0.324
.RghtPrtnr_Bf.3	1.000				1.000	0.304
.LrnPrtnr_Bfr.3	1.000				1.000	0.092
.PcRltnshp_Bf.3	1.000				1.000	0.139
.WrnngSgns_Bf.3	1.000				1.000	0.066

.LrndGrwngU_B.3	1.000				1.000	0.232
.PstRltnshp_B.3	1.000				1.000	0.379
.GtAlngPrnt_B.3	1.000				1.000	0.229
.FrndshpsAL_B.3	1.000				1.000	0.144
.Fights_Befr.3n	1.000				1.000	0.412
.FlngsHrt_Bfr.3	1.000				1.000	0.344
.RghtndWrng_B.3	1.000				1.000	0.280
.Healthy_Rel.3n	1.911	1.450	1.318	0.188	1.911	0.242
.Communicate.3n	1.000				1.000	0.236
.CnflctMngmnt.3	1.000				1.000	0.345
.RightPartnr.3n	1.000				1.000	0.323
.LearnPartnr.3n	1.000				1.000	0.099
.PaceRltnshp.3n	1.000				1.000	0.150
.WarningSgns.3n	1.000				1.000	0.071
.LrndGrwngUp.3n	1.000				1.000	0.292
.PstRltnshps.3n	0.237	0.105	2.261	0.024	0.237	0.165
.GtAlngPrnts.3n	1.000				1.000	0.288
.FrndshpsArLk.3	1.000				1.000	0.187
.Fights.3n	1.000				1.000	0.319
.FeelingsHrt.3n	1.000				1.000	0.260
.RightndWrng.3n	1.000				1.000	0.207

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.363				0.363	1.000
Commnct_Bfr.3n	0.468				0.468	1.000
CnflctMngm_B.3	0.570				0.570	1.000
Healthy_Rel.3n	0.356				0.356	1.000
Communicate.3n	0.486				0.486	1.000
CnflctMngmnt.3	0.587				0.587	1.000
RghtPrtnr_Bf.3	0.551				0.551	1.000
LrnPrtnr_Bfr.3	0.303				0.303	1.000
PcRltnshp_Bf.3	0.372				0.372	1.000
WrngSgns_Bf.3	0.256				0.256	1.000
RightPartnr.3n	0.568				0.568	1.000
LearnPartnr.3n	0.315				0.315	1.000
PaceRltnshp.3n	0.387				0.387	1.000
WarningSgns.3n	0.267				0.267	1.000
LrndGrwngU_B.3	0.482				0.482	1.000
PstRltnshp_B.3	0.616				0.616	1.000
GtAlngPrnt_B.3	0.479				0.479	1.000
FrndshpsAL_B.3	0.380				0.380	1.000
LrndGrwngUp.3n	0.540				0.540	1.000
PstRltnshps.3n	0.833				0.833	1.000
GtAlngPrnts.3n	0.537				0.537	1.000
FrndshpsArLk.3	0.432				0.432	1.000
Fights_Befr.3n	0.642				0.642	1.000
FlngsHrt_Bfr.3	0.587				0.587	1.000

RghtndWrng_B.3	0.530	0.530	1.000
Fights.3n	0.565	0.565	1.000
FeelingsHrt.3n	0.510	0.510	1.000
RightndWrng.3n	0.455	0.455	1.000

6.4.16 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.thresh, Fit.Rcomb.model.c.uniq.3)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c.thresh	314		230.75				
Fit.Rcomb.model.c.uniq.3	337		259.95	44.441		23	0.004651

Fit.Rcomb.model.c.thresh

Fit.Rcomb.model.c.uniq.3 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.4.17 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi
1	Communicate.3n	~~	WarningSigns.3n	220.31345
2	RBA.post	==	LearnPartner.3n	106.91400
3	ConflictManagement.3n	~~	RightPartner.3n	50.98824
4	PRB.post	==	ConflictManagement.3n	32.36120
5	Healthy_Rel.3n	~~	WarningSigns.3n	30.27502
6	Healthy_Rel.3n	~~	PaceRelationship.3n	30.09610
7	RBA.post	==	WarningSigns.3n	23.53480
8	PRB.rpre	==	PastRelationships.3n	14.80870
9	RBA.rpre	==	PastRelationships.3n	13.16598
10	RBA.post	==	PaceRelationship.3n	13.09892
11	Communicate_Before.3n	~~	Communicate_Before.3n	12.28379
12	RBA.rpre	==	Communicate_Before.3n	11.53668
13	RBA.rpre	==	Healthy_Rel_Before.3n	11.11505
14	PRB.post	==	PaceRelationship_Before.3n	10.87112

15		PRB.rpre =~	Healthy_Rel_Before.3n	10.80914
16		RBA.post =~	PaceRelationship_Before.3n	10.63316
17		PS.post =~	PaceRelationship_Before.3n	10.00020
	epc	sepc.lv	sepc.all	sepc.nox
1	27.2607991	27.2607991	27.2607991	27.2607991
2	7.4461435	10.8846423	3.4319348	3.4319348
3	1.8130989	1.8130989	1.8130989	1.8130989
4	2.7464008	4.2794608	2.5138288	2.5138288
5	6.5622660	6.5622660	4.7471302	4.7471302
6	3.8376821	3.8376821	2.7761716	2.7761716
7	1.8802236	2.7484780	0.7340294	0.7340294
8	-0.1494479	-0.2716489	-0.2262094	-0.2262094
9	-0.2088336	-0.2496728	-0.2079092	-0.2079092
10	0.9482782	1.3861765	0.5367469	0.5367469
11	1.7193036	1.0000000	0.2194246	0.2194246
12	-0.5080030	-0.6073473	-0.2844983	-0.2844983
13	0.7323226	0.8755344	0.3182239	0.3182239
14	0.3058454	0.4765704	0.1775160	0.1775160
15	0.4203750	0.7641087	0.2777248	0.2777248
16	0.3048022	0.4455546	0.1659630	0.1659630
17	0.3209620	0.4645019	0.1730207	0.1730207

6.4.18 Unique Factor Invariant 4

Warning in lav_object_post_check(object): lavaan WARNING: covariance matrix of latent variables
is not positive definite;
use inspect(fit,"cov.lv") to investigate.

lavaan (0.6-1) converged normally after 220 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	247.609	387.189
Degrees of freedom	336	336
P-value (Chi-square)	1.000	0.028
Scaling correction factor		1.442
Shift parameter		215.478
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.988
Tucker-Lewis Index (TLI)	1.005	0.986
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.037
90 Percent Confidence Interval	0.000 0.000	0.013 0.053
P-value RMSEA <= 0.05	1.000	0.902
Robust RMSEA		NA
90 Percent Confidence Interval		NA NA

Standardized Root Mean Square Residual:

SRMR	0.080	0.080
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre =~						
H_R_B.3	1.000				2.538	0.930
Cmm_B.3 (V2L)	0.483	0.201	2.408	0.016	1.227	0.775
CnM_B.3 (V3L)	0.637	0.244	2.613	0.009	1.618	0.851
HRS.post =~						
Hlt_R.3	1.000				2.137	0.879
Cmmnc.3 (V2L)	0.483	0.201	2.408	0.016	1.033	0.910
CnflM.3 (V3L)	0.637	0.244	2.613	0.009	1.362	0.806
PS.rpre =~						
RgP_B.3 (V4L)	1.000				1.518	0.835
LrP_B.3 (V5L)	2.044	0.451	4.531	0.000	3.102	0.952
PcR_B.3 (V6L)	1.644	0.299	5.495	0.000	2.496	0.928
WrS_B.3 (V7L)	2.496	0.719	3.471	0.001	3.789	0.967
PS.post =~						
RghtP.3 (V4L)	1.000				1.453	0.824
LrnPr.3 (V5L)	2.044	0.451	4.531	0.000	2.969	0.948
PcRlt.3 (V6L)	1.644	0.299	5.495	0.000	2.389	0.922
WrnnS.3 (V7L)	2.496	0.719	3.471	0.001	3.626	0.964
PRB.rpre =~						
LGU_B.3 (V8L)	1.000				1.817	0.876
PsR_B.3 (V9L)	0.705	0.126	5.584	0.000	1.281	0.788
GAP_B.3 (V10L)	1.009	0.168	6.002	0.000	1.833	0.878
FAL_B.3 (V11L)	1.340	0.199	6.729	0.000	2.435	0.925
PRB.post =~						
LrnGU.3 (V8L)	1.000				1.558	0.842
PstRl.3 (V9L)	0.705	0.126	5.584	0.000	1.098	0.914
GtAlP.3 (V10L)	1.009	0.168	6.002	0.000	1.572	0.844
FrnAL.3 (V11L)	1.340	0.199	6.729	0.000	2.088	0.902
RBA.rpre =~						
Fgh_B.3 (V12L)	1.000				1.194	0.767
FlH_B.3 (V13L)	1.157	0.163	7.084	0.000	1.382	0.810
RgW_B.3 (V14L)	1.341	0.184	7.285	0.000	1.602	0.848
RBA.post =~						
Fghts.3 (V12L)	1.000				1.460	0.825
FlngH.3 (V13L)	1.157	0.163	7.084	0.000	1.690	0.861
RghtW.3 (V14L)	1.341	0.184	7.285	0.000	1.959	0.891

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HRS.rpre ~~				
HRS.post	0.803	0.858	0.936	0.349
PS.rpre	3.018	1.162	2.597	0.009

PS.post	0.252	0.430	0.585	0.558
PRB.rpre	2.751	1.078	2.551	0.011
PRB.post	-0.443	0.493	-0.900	0.368
RBA.rpre	1.933	0.768	2.518	0.012
RBA.post	0.365	0.488	0.748	0.454
HRS.post ~~				
PS.rpre	-0.097	0.367	-0.264	0.792
PS.post	3.163	1.395	2.267	0.023
PRB.rpre	0.891	0.588	1.516	0.130
PRB.post	2.318	1.131	2.050	0.040
RBA.rpre	0.536	0.375	1.432	0.152
RBA.post	2.693	1.255	2.147	0.032
PS.rpre ~~				
PS.post	0.012	0.256	0.048	0.962
PRB.rpre	1.490	0.389	3.831	0.000
PRB.post	-0.196	0.277	-0.710	0.478
RBA.rpre	0.982	0.293	3.352	0.001
RBA.post	0.058	0.296	0.197	0.844
PS.post ~~				
PRB.rpre	0.586	0.343	1.711	0.087
PRB.post	1.594	0.464	3.437	0.001
RBA.rpre	0.231	0.209	1.106	0.269
RBA.post	1.768	0.460	3.847	0.000
PRB.rpre ~~				
PRB.post	1.135	0.450	2.524	0.012
RBA.rpre	2.000	0.479	4.173	0.000
RBA.post	0.911	0.381	2.389	0.017
PRB.post ~~				
RBA.rpre	0.374	0.236	1.581	0.114
RBA.post	2.178	0.531	4.099	0.000
RBA.rpre ~~				
RBA.post	0.557	0.262	2.129	0.033
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.912	0.787	1.159	0.246
.Communicate_Before.3n ~~				
.Communicate.3n	0.349	0.184	1.900	0.057
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.430	0.298	1.441	0.150
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.115	0.329	0.349	0.727
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	1.367	0.833	1.642	0.101
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	1.107	0.757	1.461	0.144
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	1.260	1.379	0.914	0.361
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.180	0.403	0.448	0.654

.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.539	0.242	2.231	0.026
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.449	0.306	1.469	0.142
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.438	0.481	2.988	0.003
.Fights_Before.3n ~~				
.Fights.3n	0.607	0.259	2.340	0.019
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.583	0.375	1.553	0.120
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.870	0.384	2.266	0.023
Std.lv Std.all				

0.148	0.148
0.783	0.783
0.068	0.068
0.597	0.597
-0.112	-0.112
0.638	0.638
0.098	0.098

-0.030	-0.030
1.019	1.019
0.229	0.229
0.696	0.696
0.210	0.210
0.863	0.863

0.006	0.006
0.540	0.540
-0.083	-0.083
0.542	0.542
0.026	0.026

0.222	0.222
0.704	0.704
0.133	0.133
0.834	0.834

0.401	0.401
0.922	0.922
0.343	0.343

0.201	0.201
0.957	0.957

0.320	0.320
-------	-------

0.912	0.786
0.349	0.739
0.430	0.430
0.115	0.115
1.367	1.367
1.107	1.107
1.260	1.260
0.180	0.180
0.539	1.104
0.449	0.449
1.438	1.438
0.607	0.607
0.583	0.583
0.870	0.870

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	0.000				0.000	0.000
HRS.post	4.746	1.753	2.707	0.007	2.221	2.221
PS.rpre	-1.855	0.275	-6.751	0.000	-1.222	-1.222
PS.post	1.662	0.220	7.548	0.000	1.144	1.144
PRB.rpre	-1.260	0.239	-5.274	0.000	-0.693	-0.693
PRB.post	1.418	0.225	6.314	0.000	0.910	0.910
RBA.rpre	-0.811	0.152	-5.343	0.000	-0.679	-0.679
RBA.post	1.438	0.222	6.489	0.000	0.985	0.985
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000

.WrngSgns_Bf.3	0.000	0.000	0.000
.RightPartnr.3n	0.000	0.000	0.000
.LearnPartnr.3n	0.000	0.000	0.000
.PaceRltnshp.3n	0.000	0.000	0.000
.WarningSgns.3n	0.000	0.000	0.000
.LrndGrwngU_B.3	0.000	0.000	0.000
.PstRltnshp_B.3	0.000	0.000	0.000
.GtAlngPrnt_B.3	0.000	0.000	0.000
.FrndshpsAL_B.3	0.000	0.000	0.000
.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.663	0.392	1.692	0.091	0.663	0.243
H_R_B.3 (V1t2)	4.568	1.597	2.861	0.004	4.568	1.675
H_R.3 1 (V1t1)	0.663	0.392	1.692	0.091	0.663	0.272
H_R.3 2 (V1t2)	4.568	1.597	2.861	0.004	4.568	1.878
C_B.3 1 (V2t1)	0.353	0.180	1.962	0.050	0.353	0.223
C_B.3 2 (V2t2)	2.324	0.395	5.887	0.000	2.324	1.468
Cmm.3 1 (V2t1)	0.353	0.180	1.962	0.050	0.353	0.311
Cmm.3 2 (V2t2)	2.324	0.395	5.887	0.000	2.324	2.045
CM_B.3 (V3t1)	0.762	0.258	2.951	0.003	0.762	0.401
CM_B.3 (V3t2)	3.294	0.370	8.897	0.000	3.294	1.732
CnM.3 1 (V3t1)	0.762	0.258	2.951	0.003	0.762	0.451
CnM.3 2 (V3t2)	3.294	0.370	8.897	0.000	3.294	1.949
RP_B.3 (V4t1)	-0.634	0.163	-3.889	0.000	-0.634	-0.349
RP_B.3 (V4t2)	1.786	0.203	8.804	0.000	1.786	0.983
RgP.3 1 (V4t1)	-0.634	0.163	-3.889	0.000	-0.634	-0.359
RgP.3 2 (V4t2)	1.786	0.203	8.804	0.000	1.786	1.013
LP_B.3 (V5t1)	-2.289	0.489	-4.681	0.000	-2.289	-0.702
LP_B.3 (V5t2)	2.515	0.454	5.538	0.000	2.515	0.772
LrP.3 1 (V5t1)	-2.289	0.489	-4.681	0.000	-2.289	-0.731
LrP.3 2 (V5t2)	2.515	0.454	5.538	0.000	2.515	0.803
PR_B.3 (V6t1)	-1.443	0.272	-5.304	0.000	-1.443	-0.537
PR_B.3 (V6t2)	2.264	0.334	6.773	0.000	2.264	0.842
PcR.3 1 (V6t1)	-1.443	0.272	-5.304	0.000	-1.443	-0.557
PcR.3 2 (V6t2)	2.264	0.334	6.773	0.000	2.264	0.874
WS_B.3 (V7t1)	-3.277	0.919	-3.564	0.000	-3.277	-0.836
WS_B.3 (V7t2)	3.190	0.902	3.537	0.000	3.190	0.814

WrS.3 1 (V7t1)	-3.277	0.919	-3.564	0.000	-3.277	-0.871
WrS.3 2 (V7t2)	3.190	0.902	3.537	0.000	3.190	0.848
LGU_B.3 (V8t1)	-1.173	0.154	-7.601	0.000	-1.173	-0.565
LGU_B.3 (V8t2)	1.195	0.161	7.422	0.000	1.195	0.576
LGU.3 1 (V8t1)	-1.173	0.154	-7.601	0.000	-1.173	-0.633
LGU.3 2 (V8t2)	1.195	0.161	7.422	0.000	1.195	0.646
PR_B.3 (V9t1)	-0.851	0.179	-4.745	0.000	-0.851	-0.524
PR_B.3 (V9t2)	0.596	0.127	4.689	0.000	0.596	0.367
PsR.3 1 (V9t1)	-0.851	0.179	-4.745	0.000	-0.851	-0.708
PsR.3 2 (V9t2)	0.596	0.127	4.689	0.000	0.596	0.496
GAP_B.3 (V101)	-1.263	0.154	-8.178	0.000	-1.263	-0.605
GAP_B.3 (V102)	0.742	0.141	5.266	0.000	0.742	0.356
GAP.3 1 (V101)	-1.263	0.154	-8.178	0.000	-1.263	-0.678
GAP.3 2 (V102)	0.742	0.141	5.266	0.000	0.742	0.399
FAL_B.3 (V111)	-1.652	0.180	-9.186	0.000	-1.652	-0.628
FAL_B.3 (V112)	1.011	0.160	6.323	0.000	1.011	0.384
FAL.3 1 (V111)	-1.652	0.180	-9.186	0.000	-1.652	-0.714
FAL.3 2 (V112)	1.011	0.160	6.323	0.000	1.011	0.437
F_B.3 1 (V121)	-0.988	0.131	-7.543	0.000	-0.988	-0.634
F_B.3 2 (V122)	0.710	0.127	5.570	0.000	0.710	0.456
Fgh.3 1 (V121)	-0.988	0.131	-7.543	0.000	-0.988	-0.558
Fgh.3 2 (V122)	0.710	0.127	5.570	0.000	0.710	0.401
FH_B.3 (V131)	-1.441	0.143	-10.050	0.000	-1.441	-0.844
FH_B.3 (V132)	0.763	0.141	5.399	0.000	0.763	0.447
FlH.3 1 (V131)	-1.441	0.143	-10.050	0.000	-1.441	-0.734
FlH.3 2 (V132)	0.763	0.141	5.399	0.000	0.763	0.388
RW_B.3 (V141)	-1.807	0.167	-10.792	0.000	-1.807	-0.957
RW_B.3 (V142)	0.600	0.128	4.681	0.000	0.600	0.318
RgW.3 1 (V141)	-1.807	0.167	-10.792	0.000	-1.807	-0.822
RgW.3 2 (V142)	0.600	0.128	4.681	0.000	0.600	0.273

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HRS.rpre	6.442	4.562	1.412	0.158	1.000	1.000
HRS.post	4.568	3.617	1.263	0.207	1.000	1.000
PS.rpre	2.304	0.614	3.751	0.000	1.000	1.000
PS.post	2.110	0.638	3.307	0.001	1.000	1.000
PRB.rpre	3.302	0.971	3.401	0.001	1.000	1.000
PRB.post	2.428	0.772	3.147	0.002	1.000	1.000
RBA.rpre	1.426	0.426	3.346	0.001	1.000	1.000
RBA.post	2.132	0.618	3.447	0.001	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.134
.Commnct_Bfr.3n	1.000				1.000	0.399
.CnflctMngm_B.3	1.000				1.000	0.276
.RghtPrtnr_Bf.3	1.000				1.000	0.303
.LrnPrtnr_Bfr.3	1.000				1.000	0.094
.PcRltnshp_Bf.3	1.000				1.000	0.138
.WrnngSgns_Bf.3	1.000				1.000	0.065

.LrndGrwngU_B.3	1.000				1.000	0.232
.PstRltnshp_B.3	1.000				1.000	0.379
.GtAlngPrnt_B.3	1.000				1.000	0.229
.FrndshpsAL_B.3	1.000				1.000	0.144
.Fights_Befr.3n	1.000				1.000	0.412
.FlngsHrt_Bfr.3	1.000				1.000	0.344
.RghtndWrng_B.3	1.000				1.000	0.280
.Healthy_Rel.3n	1.347	1.004	1.341	0.180	1.347	0.228
.Communicate.3n	0.223	0.097	2.294	0.022	0.223	0.173
.CnflctMngmnt.3	1.000				1.000	0.350
.RightPartnr.3n	1.000				1.000	0.322
.LearnPartnr.3n	1.000				1.000	0.102
.PaceRltnshp.3n	1.000				1.000	0.149
.WarningSgns.3n	1.000				1.000	0.071
.LrndGrwngUp.3n	1.000				1.000	0.292
.PstRltnshps.3n	0.238	0.105	2.262	0.024	0.238	0.165
.GtAlngPrnts.3n	1.000				1.000	0.288
.FrndshpsArLk.3	1.000				1.000	0.187
.Fights.3n	1.000				1.000	0.319
.FeelingsHrt.3n	1.000				1.000	0.259
.RightndWrng.3n	1.000				1.000	0.207

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.367				0.367	1.000
Commnct_Bfr.3n	0.632				0.632	1.000
CnflctMngm_B.3	0.526				0.526	1.000
Healthy_Rel.3n	0.411				0.411	1.000
Communicate.3n	0.880				0.880	1.000
CnflctMngmnt.3	0.592				0.592	1.000
RghtPrtnr_Bf.3	0.550				0.550	1.000
LrnPrtnr_Bfr.3	0.307				0.307	1.000
PcRltnshp_Bf.3	0.372				0.372	1.000
WrngSgns_Bf.3	0.255				0.255	1.000
RightPartnr.3n	0.567				0.567	1.000
LearnPartnr.3n	0.319				0.319	1.000
PaceRltnshp.3n	0.386				0.386	1.000
WarningSgns.3n	0.266				0.266	1.000
LrndGrwngU_B.3	0.482				0.482	1.000
PstRltnshp_B.3	0.615				0.615	1.000
GtAlngPrnt_B.3	0.479				0.479	1.000
FrndshpsAL_B.3	0.380				0.380	1.000
LrndGrwngUp.3n	0.540				0.540	1.000
PstRltnshps.3n	0.832				0.832	1.000
GtAlngPrnts.3n	0.537				0.537	1.000
FrndshpsArLk.3	0.432				0.432	1.000
Fights_Befr.3n	0.642				0.642	1.000
FlngsHrt_Bfr.3	0.586				0.586	1.000

RghtndWrng_B.3	0.530	0.530	1.000
Fights.3n	0.565	0.565	1.000
FeelingsHrt.3n	0.509	0.509	1.000
RightndWrng.3n	0.455	0.455	1.000

6.4.19 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c.thresh, Fit.Rcomb.model.c.uniq.4)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c.thresh	314		230.75				
Fit.Rcomb.model.c.uniq.4	336		247.61	30.997	22		0.09617

Fit.Rcomb.model.c.thresh

Fit.Rcomb.model.c.uniq.4 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.4.20 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: HRS.post PS.post

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: LearnPartner_Before.3n LearnPartner.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PaceRelationship_Before.3n PaceRelationship.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: WarningSigns_Before.3n WarningSigns.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi	epc
1	PRB.post	=~	Healthy_Rel.3n	44.54177	2.3120834
2	ConflictManagement.3n	~~	RightPartner.3n	39.07834	1.3718619
3	Communicate.3n	~~	WarningSigns.3n	21.55982	1.9765050
4	RBA.post	=~	LearnPartner.3n	19.38272	1.5879455
5	Healthy_Rel.3n	~~	PaceRelationship.3n	18.30637	2.1345740
6	PRB.rpre	=~	PastRelationships.3n	14.95638	-0.1503174
7	Healthy_Rel.3n	~~	WarningSigns.3n	14.88740	2.9977181
8	PRB.post	=~	ConflictManagement.3n	13.50449	0.8122554
9	RBA.rpre	=~	PastRelationships.3n	13.31064	-0.2104939
10	RBA.post	=~	WarningSigns.3n	13.09416	1.2043908
11	PRB.post	=~	PaceRelationship_Before.3n	10.91655	0.3071753
12	RBA.post	=~	PaceRelationship_Before.3n	10.71656	0.3070527
13	PS.post	=~	PaceRelationship_Before.3n	10.04845	0.3198928
	sepc.lv	sepc.all	sepc.nox		

1	3.6024931	1.4812385	1.4812385
2	1.3718619	1.3718619	1.3718619
3	1.9765050	4.1855659	4.1855659
4	2.3186152	0.7401448	0.7401448
5	2.1345740	1.8393548	1.8393548
6	-0.2731399	-0.2272182	-0.2272182
7	2.9977181	2.5831229	2.5831229
8	1.2655877	0.7488372	0.7488372
9	-0.2513582	-0.2090985	-0.2090985
10	1.7585735	0.4675424	0.4675424
11	0.4786146	0.1779867	0.1779867
12	0.4483385	0.1667277	0.1667277
13	0.4646775	0.1728038	0.1728038

6.5 2-factor Measurement Invariance

6.5.1 Configural Invariant

lavaan (0.6-1) converged normally after 212 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	281.686	380.495
Degrees of freedom	320	320
P-value (Chi-square)	0.940	0.011
Scaling correction factor		1.621
Shift parameter		206.699
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.986
Tucker-Lewis Index (TLI)	1.002	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.041	
90 Percent Confidence Interval	0.000 0.008	0.021	0.057
P-value RMSEA <= 0.05	1.000	0.807	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.089	0.089
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Parameter Estimates:

Information	Expected
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Information saturated (h1) model
Standard Errors

Unstructured
Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
Hlthy_Rl_Bfr.3	1.000				1.697	0.862
Commnct_Bfr.3n	0.609	0.155	3.922	0.000	1.034	0.719
CnflctMngm_B.3	0.852	0.204	4.174	0.000	1.447	0.823
RghtPrtnr_Bf.3	0.970	0.274	3.542	0.000	1.646	0.855
LrnPrtnr_Bfr.3	1.340	0.369	3.633	0.000	2.274	0.915
PcRltnshp_Bf.3	1.188	0.318	3.733	0.000	2.017	0.896
WrnngSgns_Bf.3	0.921	0.228	4.034	0.000	1.564	0.843
HSP.post =~						
Healthy_Rel.3n	1.000				1.309	0.886
Communicate.3n	0.207	0.158	1.308	0.191	0.271	0.925
CnflctMngmnt.3	0.426	0.201	2.118	0.034	0.558	0.778
RightPartnr.3n	1.136	0.478	2.377	0.017	1.486	0.771
LearnPartnr.3n	1.166	0.573	2.035	0.042	1.526	0.947
PaceRltnshp.3n	0.976	0.398	2.452	0.014	1.278	0.923
WarningSgns.3n	0.679	0.362	1.878	0.060	0.889	0.991
PBA.rpre =~						
LrndGrwngU_B.3	1.000				1.705	0.892
PstRltnshp_B.3	0.935	0.151	6.193	0.000	1.594	0.771
GtAlngPrnt_B.3	1.037	0.151	6.866	0.000	1.768	0.861
FrndshpsAL_B.3	1.129	0.192	5.887	0.000	1.924	0.906
Fights_Befr.3n	0.719	0.129	5.575	0.000	1.226	0.730
FlngsHrt_Bfr.3	0.883	0.107	8.219	0.000	1.505	0.794
RghtndWrng_B.3	0.826	0.122	6.765	0.000	1.408	0.789
PBA.post =~						
LrndGrwngUp.3n	1.000				1.109	0.795
PstRltnshps.3n	1.077	0.242	4.456	0.000	1.195	0.870
GtAlngPrnts.3n	1.475	0.273	5.407	0.000	1.636	0.841
FrndshpsArLk.3	1.633	0.266	6.132	0.000	1.811	0.887
Fights.3n	1.382	0.354	3.901	0.000	1.533	0.848
FeelingsHrt.3n	1.247	0.240	5.197	0.000	1.383	0.863
RightndWrng.3n	1.751	0.366	4.784	0.000	1.942	0.926

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.087	0.236	0.368	0.713
PBA.rpre	1.795	0.441	4.071	0.000
PBA.post	-0.076	0.199	-0.384	0.701
HSP.post ~~				
PBA.rpre	0.459	0.267	1.718	0.086
PBA.post	1.125	0.378	2.977	0.003
PBA.rpre ~~				

PBA.post	0.621	0.199	3.122	0.002
.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	0.665	0.334	1.994	0.046
.Communicate_Before.3n ~~				
.Communicate.3n	0.115	0.094	1.224	0.221
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.265	0.152	1.741	0.082
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.052	0.434	0.119	0.905
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.420	0.467	0.899	0.368
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.409	0.352	1.160	0.246
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.097	0.157	0.616	0.538
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.292	0.281	1.042	0.297
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.977	0.296	3.306	0.001
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.698	0.311	2.248	0.025
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.330	0.280	4.753	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.664	0.245	2.710	0.007
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.524	0.318	1.649	0.099
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.790	0.335	2.361	0.018
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.281	0.264	1.063	0.288
Std.lv Std.all				
0.039 0.039				
0.620 0.620				
-0.041 -0.041				
0.206 0.206				
0.775 0.775				
0.328 0.328				
0.665 0.971				
0.115 1.033				
0.265 0.589				

0.052	0.042
0.420	0.813
0.409	0.769
0.097	0.794
0.292	0.401
0.977	1.098
0.698	0.635
1.330	1.569
0.664	0.606
0.524	0.560
0.790	0.912
0.281	0.508

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	3.456	0.624	5.543	0.000	2.641	2.641
PBA.rpre	-1.301	0.220	-5.923	0.000	-0.763	-0.763
PBA.post	1.028	0.145	7.079	0.000	0.926	0.926
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000

.LrndGrwngUp.3n	0.000	0.000	0.000
.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.	(V1t1)	0.610	0.268	2.279	0.023	0.610	0.310
H_R_B.	(V1t2)	3.339	0.571	5.853	0.000	3.339	1.695
H_R.3	(V1t1)	0.610	0.268	2.279	0.023	0.610	0.413
H_R.3	(V1t2)	3.339	0.571	5.853	0.000	3.339	2.260
C_B.3	(V2t1)	0.245	0.177	1.386	0.166	0.245	0.170
C_B.3	(V2T1)	2.311	0.313	7.383	0.000	2.311	1.607
Cm.3 1	(V2t1)	0.245	0.177	1.386	0.166	0.245	0.837
Cm.3 2	(V2T2)	0.712	0.544	1.309	0.190	0.712	2.432
CM_B.3	(V3t1)	0.587	0.230	2.547	0.011	0.587	0.334
CM_B.3	(V3T1)	2.981	0.429	6.955	0.000	2.981	1.695
CM.3 1	(V3t1)	0.587	0.230	2.547	0.011	0.587	0.819
CM.3 2	(V3T2)	1.594	0.698	2.285	0.022	1.594	2.226
RP_B.3	(V4t1)	1.340	0.329	4.068	0.000	1.340	0.696
RP_B.3	(V4T1)	4.556	0.842	5.408	0.000	4.556	2.365
RP.3 1	(V4t1)	1.340	0.329	4.068	0.000	1.340	0.695
RP.3 2	(V4T2)	3.990	1.522	2.621	0.009	3.990	2.069
LP_B.3	(V5t1)	1.132	0.398	2.841	0.004	1.132	0.456
LP_B.3	(V5T1)	5.208	1.172	4.443	0.000	5.208	2.097
LP.3 1	(V5t1)	1.132	0.398	2.841	0.004	1.132	0.702
LP.3 2	(V5T2)	3.532	1.580	2.235	0.025	3.532	2.191
PR_B.3	(V6t1)	1.257	0.377	3.333	0.001	1.257	0.558
PR_B.3	(V6T1)	4.337	0.772	5.620	0.000	4.337	1.926
PR.3 1	(V6t1)	1.257	0.377	3.333	0.001	1.257	0.908
PR.3 2	(V6T2)	3.138	1.183	2.653	0.008	3.138	2.268
WS_B.3	(V7t1)	0.619	0.248	2.501	0.012	0.619	0.334
WS_B.3	(V7T1)	3.576	0.591	6.047	0.000	3.576	1.926
WS.3 1	(V7t1)	0.619	0.248	2.501	0.012	0.619	0.690
WS.3 2	(V7T2)	2.133	1.091	1.955	0.051	2.133	2.377
LGU_B.	(V8t1)	-1.106	0.155	-7.154	0.000	-1.106	-0.579
LGU_B.	(V8T1)	1.158	0.257	4.510	0.000	1.158	0.606
LGU.3	(V8t1)	-1.106	0.155	-7.154	0.000	-1.106	-0.793
LGU.3	(V8T2)	0.790	0.151	5.223	0.000	0.790	0.566
PR_B.3	(V9t1)	-1.099	0.178	-6.157	0.000	-1.099	-0.532
PR_B.3	(V9T1)	1.063	0.268	3.969	0.000	1.063	0.514
PR.3 1	(V9t1)	-1.099	0.178	-6.157	0.000	-1.099	-0.800

PR.3 2 (V9T2)	0.516	0.141	3.645	0.000	0.516	0.376
GAP_B. (V101)	-1.325	0.162	-8.177	0.000	-1.325	-0.645
GAP_B. (V10T1)	0.264	0.249	1.058	0.290	0.264	0.128
GAP.3 (V101)	-1.325	0.162	-8.177	0.000	-1.325	-0.681
GAP.3 (V10T2)	1.050	0.225	4.665	0.000	1.050	0.540
FAL_B. (V111)	-1.444	0.171	-8.440	0.000	-1.444	-0.680
FAL_B. (V11T1)	0.404	0.245	1.648	0.099	0.404	0.190
FAL.3 (V111)	-1.444	0.171	-8.440	0.000	-1.444	-0.708
FAL.3 (V11T2)	1.094	0.192	5.693	0.000	1.094	0.536
F_B.3 (V121)	-1.106	0.134	-8.281	0.000	-1.106	-0.659
F_B.3 (V12T1)	0.600	0.243	2.465	0.014	0.600	0.358
Fg.3 1 (V121)	-1.106	0.134	-8.281	0.000	-1.106	-0.612
Fg.3 2 (V12T2)	0.774	0.237	3.261	0.001	0.774	0.429
FH_B.3 (V131)	-1.602	0.141	-11.337	0.000	-1.602	-0.845
FH_B.3 (V13T1)	0.792	0.293	2.700	0.007	0.792	0.418
FH.3 1 (V131)	-1.602	0.141	-11.337	0.000	-1.602	-0.999
FH.3 2 (V13T2)	0.511	0.182	2.804	0.005	0.511	0.318
RW_B.3 (V141)	-1.755	0.148	-11.862	0.000	-1.755	-0.984
RW_B.3 (V14T1)	0.439	0.246	1.786	0.074	0.439	0.246
RW.3 1 (V141)	-1.755	0.148	-11.862	0.000	-1.755	-0.837
RW.3 2 (V14T2)	0.628	0.200	3.142	0.002	0.628	0.300

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	2.881	1.142	2.523	0.012	1.000	1.000
HSP.post	1.713	0.797	2.148	0.032	1.000	1.000
PBA.rpre	2.907	0.368	7.890	0.000	1.000	1.000
PBA.post	1.230	0.322	3.823	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.258
.Commnct_Bfr.3n	1.000				1.000	0.483
.CnflctMngm_B.3	1.000				1.000	0.323
.RghtPrtnr_Bf.3	1.000				1.000	0.270
.LrnPrtnr_Bfr.3	1.000				1.000	0.162
.PcRltnshp_Bf.3	1.000				1.000	0.197
.WrnngSgns_Bf.3	1.000				1.000	0.290
.LrndGrwngU_B.3	0.745	0.243	3.061	0.002	0.745	0.204
.PstRltnshp_B.3	1.733	0.206	8.426	0.000	1.733	0.405
.GtAlngPrnt_B.3	1.091	0.332	3.291	0.001	1.091	0.259
.FrndshpsAL_B.3	0.811	0.226	3.591	0.000	0.811	0.180
.Fights_Befr.3n	1.313	0.345	3.807	0.000	1.313	0.466
.FlngsHrt_Bfr.3	1.333	0.223	5.976	0.000	1.333	0.370
.RghtndWrng_B.3	1.201	0.264	4.550	0.000	1.201	0.377
.Healthy_Rel.3n	0.470	0.200	2.345	0.019	0.470	0.215
.Communicate.3n	0.012	0.020	0.611	0.541	0.012	0.144
.CnflctMngmnt.3	0.202	0.212	0.956	0.339	0.202	0.394
.RightPartnr.3n	1.510	1.517	0.995	0.320	1.510	0.406
.LearnPartnr.3n	0.267	0.300	0.892	0.372	0.267	0.103
.PaceRltnshp.3n	0.283	0.280	1.011	0.312	0.283	0.148

.WarningSgns.3n	0.015	0.038	0.390	0.696	0.015	0.018
.LrndGrwngUp.3n	0.716	0.198	3.616	0.000	0.716	0.368
.PstRltnshps.3n	0.457	0.121	3.789	0.000	0.457	0.243
.GtAlngPrnts.3n	1.107	0.233	4.745	0.000	1.107	0.293
.FrndshpsArLk.3	0.886	0.131	6.755	0.000	0.886	0.213
.Fights.3n	0.915	0.264	3.464	0.001	0.915	0.280
.FeelingsHrt.3n	0.657	0.246	2.674	0.007	0.657	0.256
.RightndWrng.3n	0.626	0.195	3.207	0.001	0.626	0.142

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.508				0.508	1.000
Commnct_Bfr.3n	0.695				0.695	1.000
CnflctMngm_B.3	0.569				0.569	1.000
RghtPrtnr_Bf.3	0.519				0.519	1.000
LrnPrtnr_Bfr.3	0.403				0.403	1.000
PcRltnshp_Bf.3	0.444				0.444	1.000
WrngSgns_Bf.3	0.539				0.539	1.000
Healthy_Rel.3n	0.677				0.677	1.000
Communicate.3n	3.417				3.417	1.000
CnflctMngmnt.3	1.396				1.396	1.000
RightPartnr.3n	0.519				0.519	1.000
LearnPartnr.3n	0.621				0.621	1.000
PaceRltnshp.3n	0.723				0.723	1.000
WarningSgns.3n	1.114				1.114	1.000
LrndGrwngU_B.3	0.523				0.523	1.000
PstRltnshp_B.3	0.484				0.484	1.000
GtAlngPrnt_B.3	0.487				0.487	1.000
FrndshpsAL_B.3	0.471				0.471	1.000
Fights_Befr.3n	0.596				0.596	1.000
FlngsHrt_Bfr.3	0.527				0.527	1.000
RghtndWrng_B.3	0.560				0.560	1.000
LrndGrwngUp.3n	0.717				0.717	1.000
PstRltnshps.3n	0.728				0.728	1.000
GtAlngPrnts.3n	0.514				0.514	1.000
FrndshpsArLk.3	0.490				0.490	1.000
Fights.3n	0.553				0.553	1.000
FeelingsHrt.3n	0.624				0.624	1.000
RightndWrng.3n	0.477				0.477	1.000

6.5.2 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi	epc	sepc.lv
1	HSP.post	=~	FriendshipsAreLike.3n	18.96825	-0.7843553	-1.0265673
2	HSP.rpre	=~	PastRelationships.3n	15.85863	-0.1654631	-0.2808634
3	HSP.post	=~	FeelingsHurt.3n	15.84940	0.5454782	0.7139239
4	PBA.rpre	=~	PastRelationships.3n	15.81571	-0.1823591	-0.3109228
5	PBA.rpre	=~	Healthy_Rel_Before.3n	13.71078	0.3342537	0.5699036
6	PBA.rpre	=~	RightPartner_Before.3n	12.13445	-0.3559690	-0.6069283
7	HSP.rpre	=~	Fights_Before.3n	10.70394	0.2624290	0.4454569
	sepc.all		sepc.nox			
1	-0.5030227		-0.5030227			
2	-0.2045737		-0.2045737			
3	0.4452451		0.4452451			
4	-0.2264681		-0.2264681			
5	0.2892764		0.2892764			
6	-0.3151152		-0.3151152			
7	0.2654812		0.2654812			

6.5.3 Loading Invariant

lavaan (0.6-1) converged normally after 254 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	288.331	392.406
Degrees of freedom	332	332
P-value (Chi-square)	0.960	0.013
Scaling correction factor		1.633
Shift parameter		215.880
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.986
Tucker-Lewis Index (TLI)	1.003	0.984
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.041	
90 Percent Confidence Interval	0.000	0.000	0.020 0.056
P-value RMSEA <= 0.05	1.000	0.832	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.089	0.089
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Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.695	0.861
Cm_B.3 (HSPL2)	0.606	0.155	3.912	0.000	1.026	0.716
CM_B.3 (HSPL3)	0.844	0.202	4.176	0.000	1.430	0.819
RP_B.3 (HSPL4)	0.987	0.275	3.587	0.000	1.672	0.858
LP_B.3 (HSPL5)	1.347	0.373	3.612	0.000	2.283	0.916
PR_B.3 (HSPL6)	1.187	0.317	3.739	0.000	2.011	0.895
WS_B.3 (HSPL7)	0.924	0.230	4.020	0.000	1.565	0.843
HSP.post =~						
Hl_R.3	1.000				1.520	0.889
Cmmn.3 (HSPL2)	0.606	0.155	3.912	0.000	0.920	0.922
CnfM.3 (HSPL3)	0.844	0.202	4.176	0.000	1.282	0.773
RghP.3 (HSPL4)	0.987	0.275	3.587	0.000	1.499	0.775
LrnP.3 (HSPL5)	1.347	0.373	3.612	0.000	2.048	0.948
PcRl.3 (HSPL6)	1.187	0.317	3.739	0.000	1.804	0.923
WrnS.3 (HSPL7)	0.924	0.230	4.020	0.000	1.404	0.991
PBA.rpre =~						
LGU_B.	1.000				0.281	0.892
PR_B.3 (PBAL2)	1.462	0.144	10.159	0.000	0.411	0.771
GAP_B. (PBAL3)	1.090	0.110	9.873	0.000	0.307	0.861
FAL_B. (PBAL4)	1.461	0.109	13.406	0.000	0.411	0.906
Fg_B.3 (PBAL5)	1.376	0.146	9.412	0.000	0.387	0.731
FH_B.3 (PBAL6)	1.458	0.191	7.633	0.000	0.410	0.793
RW_B.3 (PBAL7)	1.870	0.291	6.426	0.000	0.526	0.789
PBA.post =~						
LrGU.3	1.000				1.948	0.799
PstR.3 (PBAL2)	1.462	0.144	10.159	0.000	2.847	0.872
GtAP.3 (PBAL3)	1.090	0.110	9.873	0.000	2.123	0.840
FrAL.3 (PBAL4)	1.461	0.109	13.406	0.000	2.845	0.886
Fght.3 (PBAL5)	1.376	0.146	9.412	0.000	2.681	0.843
FlnH.3 (PBAL6)	1.458	0.191	7.633	0.000	2.839	0.868
RghW.3 (PBAL7)	1.870	0.291	6.426	0.000	3.642	0.925

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.101	0.272	0.371	0.711
PBA.rpre	0.296	0.850	0.348	0.728
PBA.post	-0.135	0.348	-0.388	0.698
HSP.post ~~				
PBA.rpre	0.088	0.253	0.347	0.728
PBA.post	2.292	0.631	3.632	0.000
PBA.rpre ~~				
PBA.post	0.180	0.512	0.351	0.726
.Healthy_Rel_Before.3n ~~				

.Healthy_Rel.3n	0.769	0.402	1.912	0.056
.Communicate_Before.3n ~~				
.Communicate.3n	0.390	0.153	2.540	0.011
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.609	0.250	2.433	0.015
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.051	0.438	0.117	0.906
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.565	0.560	1.008	0.313
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.576	0.471	1.223	0.221
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.153	0.244	0.624	0.532
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.083	0.255	0.327	0.743
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.599	1.745	0.344	0.731
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.158	0.467	0.339	0.735
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.448	1.298	0.345	0.730
.Fights_Before.3n ~~				
.Fights.3n	0.371	1.065	0.349	0.727
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.289	0.833	0.347	0.729
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.555	1.467	0.378	0.705
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.653	0.310	2.103	0.035
Std.lv Std.all				
0.039 0.039				
0.621 0.621				
-0.041 -0.041				
0.206 0.206				
0.775 0.775				
0.328 0.328				
0.769 0.981				
0.390 1.008				
0.609 0.579				
0.051 0.042				

0.565	0.825
0.576	0.768
0.153	0.799
0.083	0.400
0.599	1.103
0.158	0.634
0.448	1.562
0.371	0.600
0.289	0.566
0.555	0.909
0.653	0.508

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	3.546	0.638	5.556	0.000	2.334	2.334
PBA.rpre	-1.052	0.177	-5.941	0.000	-3.739	-3.739
PBA.post	2.445	0.320	7.630	0.000	1.255	1.255
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000

.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.	(V1t1)	0.523	0.255	2.052	0.040	0.523	0.266
H_R_B.	(V1t2)	3.396	0.570	5.956	0.000	3.396	1.726
H_R.3	(V1t1)	0.523	0.255	2.052	0.040	0.523	0.306
H_R.3	(V1t2)	3.396	0.570	5.956	0.000	3.396	1.986
C_B.3	(V2t1)	0.374	0.155	2.409	0.016	0.374	0.261
C_B.3	(V2T1)	2.302	0.311	7.403	0.000	2.302	1.607
Cm.3 1	(V2t1)	0.374	0.155	2.409	0.016	0.374	0.375
Cm.3 2	(V2T2)	2.136	0.369	5.787	0.000	2.136	2.140
CM_B.3	(V3t1)	0.723	0.236	3.060	0.002	0.723	0.415
CM_B.3	(V3T1)	2.957	0.420	7.035	0.000	2.957	1.695
CM.3 1	(V3t1)	0.723	0.236	3.060	0.002	0.723	0.436
CM.3 2	(V3T2)	3.274	0.593	5.524	0.000	3.274	1.975
RP_B.3	(V4t1)	1.185	0.336	3.524	0.000	1.185	0.608
RP_B.3	(V4T1)	4.608	0.854	5.394	0.000	4.608	2.365
RP.3 1	(V4t1)	1.185	0.336	3.524	0.000	1.185	0.613
RP.3 2	(V4T2)	3.564	0.897	3.971	0.000	3.564	1.843
LP_B.3	(V5t1)	1.066	0.377	2.831	0.005	1.066	0.428
LP_B.3	(V5T1)	5.226	1.185	4.411	0.000	5.226	2.097
LP.3 1	(V5t1)	1.066	0.377	2.831	0.005	1.066	0.494
LP.3 2	(V5T2)	4.109	1.043	3.941	0.000	4.109	1.903
PR_B.3	(V6t1)	1.242	0.359	3.455	0.001	1.242	0.553
PR_B.3	(V6T1)	4.327	0.770	5.617	0.000	4.327	1.926
PR.3 1	(V6t1)	1.242	0.359	3.455	0.001	1.242	0.636
PR.3 2	(V6T2)	3.877	0.885	4.380	0.000	3.877	1.984
WS_B.3	(V7t1)	0.598	0.228	2.618	0.009	0.598	0.322
WS_B.3	(V7T1)	3.578	0.592	6.044	0.000	3.578	1.926
WS.3 1	(V7t1)	0.598	0.228	2.618	0.009	0.598	0.422
WS.3 2	(V7T2)	2.936	0.671	4.378	0.000	2.936	2.073
LGU_B.	(V8t1)	-1.022	0.111	-9.188	0.000	-1.022	-3.240
LGU_B.	(V8T1)	-0.646	1.012	-0.639	0.523	-0.646	-2.049
LGU.3	(V8t1)	-1.022	0.111	-9.188	0.000	-1.022	-0.419
LGU.3	(V8T2)	2.030	0.338	5.997	0.000	2.030	0.833
PR_B.3	(V9t1)	-1.510	0.199	-7.589	0.000	-1.510	-2.830
PR_B.3	(V9T1)	-0.950	1.461	-0.650	0.516	-0.950	-1.781
PR.3 1	(V9t1)	-1.510	0.199	-7.589	0.000	-1.510	-0.462
PR.3 2	(V9T2)	2.167	0.430	5.035	0.000	2.167	0.664
GAP_B.	(V101)	-1.142	0.218	-5.235	0.000	-1.142	-3.205

GAP_B. (V10T1)	-0.867	0.602	-1.440	0.150	-0.867	-2.434
GAP.3 (V101)	-1.142	0.218	-5.235	0.000	-1.142	-0.452
GAP.3 (V10T2)	2.060	0.301	6.840	0.000	2.060	0.814
FAL_B. (V111)	-1.530	0.246	-6.224	0.000	-1.530	-3.372
FAL_B. (V11T1)	-1.137	0.914	-1.244	0.214	-1.137	-2.506
FAL.3 (V111)	-1.530	0.246	-6.224	0.000	-1.530	-0.477
FAL.3 (V11T2)	2.652	0.372	7.137	0.000	2.652	0.826
F_B.3 (V121)	-1.497	0.345	-4.337	0.000	-1.497	-2.823
F_B.3 (V12T1)	-0.963	1.195	-0.806	0.420	-0.963	-1.817
Fg.3 1 (V121)	-1.497	0.345	-4.337	0.000	-1.497	-0.471
Fg.3 2 (V12T2)	2.229	0.577	3.864	0.000	2.229	0.701
FH_B.3 (V131)	-1.662	0.579	-2.869	0.004	-1.662	-3.215
FH_B.3 (V13T1)	-1.005	1.329	-0.756	0.449	-1.005	-1.943
FH.3 1 (V131)	-1.662	0.579	-2.869	0.004	-1.662	-0.508
FH.3 2 (V13T2)	1.992	0.544	3.659	0.000	1.992	0.609
RW_B.3 (V141)	-2.221	0.775	-2.866	0.004	-2.221	-3.331
RW_B.3 (V14T1)	-1.402	1.504	-0.932	0.351	-1.402	-2.103
RW.3 1 (V141)	-2.221	0.775	-2.866	0.004	-2.221	-0.564
RW.3 2 (V14T2)	2.375	0.815	2.915	0.004	2.375	0.603

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	2.872	1.132	2.536	0.011	1.000	1.000
HSP.post	2.309	1.041	2.219	0.026	1.000	1.000
PBA.rpre	0.079	0.454	0.174	0.862	1.000	1.000
PBA.post	3.793	0.376	10.076	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.258
.Commnct_Bfr.3n	1.000				1.000	0.487
.CnflctMngm_B.3	1.000				1.000	0.329
.RghtPrtnr_Bf.3	1.000				1.000	0.263
.LrnPrtnr_Bfr.3	1.000				1.000	0.161
.PcRltnshp_Bf.3	1.000				1.000	0.198
.WrngSgns_Bf.3	1.000				1.000	0.290
.LrndGrwngU_B.3	0.020	0.117	0.174	0.862	0.020	0.204
.PstRltnshp_B.3	0.115	0.665	0.174	0.862	0.115	0.405
.GtAlngPrnt_B.3	0.033	0.190	0.173	0.862	0.033	0.259
.FrndshpsAL_B.3	0.037	0.213	0.173	0.862	0.037	0.180
.Fights_Befr.3n	0.131	0.746	0.176	0.861	0.131	0.466
.FlngsHrt_Bfr.3	0.099	0.564	0.176	0.861	0.099	0.371
.RghtndWrng_B.3	0.168	0.924	0.181	0.856	0.168	0.377
.Healthy_Rel.3n	0.615	0.276	2.228	0.026	0.615	0.210
.Communicate.3n	0.150	0.069	2.180	0.029	0.150	0.150
.CnflctMngmnt.3	1.105	0.433	2.554	0.011	1.105	0.402
.RightPartnr.3n	1.492	0.799	1.867	0.062	1.492	0.399
.LearnPartnr.3n	0.468	0.304	1.541	0.123	0.468	0.100
.PaceRltnshp.3n	0.564	0.294	1.919	0.055	0.564	0.148
.WarningSgns.3n	0.037	0.087	0.419	0.675	0.037	0.018
.LrndGrwngUp.3n	2.147	0.518	4.147	0.000	2.147	0.361

.PstRltnshps.3n	2.559	0.247	10.345	0.000	2.559	0.240
.GtAlngPrnts.3n	1.888	0.217	8.722	0.000	1.888	0.295
.FrndshpsArLk.3	2.219	0.196	11.307	0.000	2.219	0.215
.Fights.3n	2.916	0.224	13.026	0.000	2.916	0.289
.FeelingsHrt.3n	2.631	0.323	8.144	0.000	2.631	0.246
.RightndWrng.3n	2.223	0.349	6.373	0.000	2.223	0.144

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.508				0.508	1.000
Commnct_Bfr.3n	0.698				0.698	1.000
CnflctMngm_B.3	0.573				0.573	1.000
RghtPrtnr_Bf.3	0.513				0.513	1.000
LrnPrtnr_Bfr.3	0.401				0.401	1.000
PcRltnshp_Bf.3	0.445				0.445	1.000
WrngSgns_Bf.3	0.538				0.538	1.000
Healthy_Rel.3n	0.585				0.585	1.000
Communicate.3n	1.002				1.002	1.000
CnflctMngmnt.3	0.603				0.603	1.000
RightPartnr.3n	0.517				0.517	1.000
LearnPartnr.3n	0.463				0.463	1.000
PaceRltnshp.3n	0.512				0.512	1.000
WarningSgns.3n	0.706				0.706	1.000
LrndGrwngU_B.3	3.171				3.171	1.000
PstRltnshp_B.3	1.874				1.874	1.000
GtAlngPrnt_B.3	2.806				2.806	1.000
FrndshpsAL_B.3	2.203				2.203	1.000
Fights_Befr.3n	1.886				1.886	1.000
FlngsHrt_Bfr.3	1.934				1.934	1.000
RghtndWrng_B.3	1.500				1.500	1.000
LrndGrwngUp.3n	0.410				0.410	1.000
PstRltnshps.3n	0.306				0.306	1.000
GtAlngPrnts.3n	0.395				0.395	1.000
FrndshpsArLk.3	0.311				0.311	1.000
Fights.3n	0.315				0.315	1.000
FeelingsHrt.3n	0.306				0.306	1.000
RightndWrng.3n	0.254				0.254	1.000

6.5.4 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs op	rhs	mi	epc	sepc.lv
1	HSP.rpre =~	FriendshipsAreLike.3n	331.61356	39.32687535	66.6433951
2	HSP.post =~	FriendshipsAreLike.3n	22.02770	-1.19399880	-1.8144249
3	HSP.rpre =~	PastRelationships.3n	17.05313	-0.42463274	-0.7195834
4	HSP.post =~	FeelingsHurt.3n	16.90601	0.96933129	1.4730156
5	PBA.post =~	PastRelationships_Before.3n	11.44762	0.05374411	0.1046674
6	HSP.rpre =~	Fights_Before.3n	10.68566	0.08303441	0.1407103
7	PBA.rpre =~	PastRelationships.3n	10.34116	-1.59165728	-0.4479046
	sepc.all	sepc.nox			
1	20.7537932	20.7537932			
2	-0.5650402	-0.5650402			
3	-0.2203443	-0.2203443			
4	0.4504706	0.4504706			
5	0.1961838	0.1961838			
6	0.2653848	0.2653848			
7	-0.1371532	-0.1371532			

6.5.5 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c2.con, Fit.Rcomb.model.c2.load)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c2.con	320			281.69			
Fit.Rcomb.model.c2.load	332			288.33	13.005	12	0.3687

6.5.6 Threshold Invariant

lavaan (0.6-1) converged normally after 132 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	304.448	410.727
Degrees of freedom	345	345
P-value (Chi-square)	0.943	0.009
Scaling correction factor		1.639
Shift parameter		224.922
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.002	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.042	
90 Percent Confidence Interval	0.000	0.007	0.022 0.056
P-value RMSEA <= 0.05	1.000	0.812	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.089	0.089
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.647	0.855
Cm_B.3 (HSPL2)	0.623	0.143	4.363	0.000	1.027	0.716
CM_B.3 (HSPL3)	0.822	0.171	4.799	0.000	1.353	0.804
RP_B.3 (HSPL4)	1.034	0.266	3.884	0.000	1.702	0.862
LP_B.3 (HSPL5)	1.443	0.392	3.679	0.000	2.377	0.922
PR_B.3 (HSPL6)	1.223	0.296	4.126	0.000	2.014	0.896
WS_B.3 (HSPL7)	0.977	0.218	4.486	0.000	1.609	0.849
HSP.post =~						
Hl_R.3	1.000				1.644	0.889
Cmmn.3 (HSPL2)	0.623	0.143	4.363	0.000	1.025	0.922
CnfM.3 (HSPL3)	0.822	0.171	4.799	0.000	1.351	0.773
RghP.3 (HSPL4)	1.034	0.266	3.884	0.000	1.699	0.775
LrnP.3 (HSPL5)	1.443	0.392	3.679	0.000	2.373	0.949
PcRl.3 (HSPL6)	1.223	0.296	4.126	0.000	2.010	0.923
WrnS.3 (HSPL7)	0.977	0.218	4.486	0.000	1.606	0.991
PBA.rpre =~						
LGU_B.	1.000				1.095	0.895
PR_B.3 (PBAL2)	1.175	0.097	12.138	0.000	1.287	0.780
GAP_B. (PBAL3)	1.469	0.101	14.485	0.000	1.609	0.852
FAL_B. (PBAL4)	1.401	0.079	17.678	0.000	1.534	0.899
Fg_B.3 (PBAL5)	1.332	0.135	9.848	0.000	1.459	0.733
FH_B.3 (PBAL6)	1.147	0.078	14.719	0.000	1.256	0.799
RW_B.3 (PBAL7)	1.702	0.132	12.897	0.000	1.864	0.793
PBA.post =~						
LrGU.3	1.000				1.010	0.802
PstR.3 (PBAL2)	1.175	0.097	12.138	0.000	1.187	0.875
GtAP.3 (PBAL3)	1.469	0.101	14.485	0.000	1.485	0.839
FrAL.3 (PBAL4)	1.401	0.079	17.678	0.000	1.415	0.887
Fght.3 (PBAL5)	1.332	0.135	9.848	0.000	1.346	0.845
FlnH.3 (PBAL6)	1.147	0.078	14.719	0.000	1.159	0.866
RghW.3 (PBAL7)	1.702	0.132	12.897	0.000	1.720	0.920

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.105	0.286	0.368	0.713
PBA.rpre	1.118	0.272	4.105	0.000
PBA.post	-0.068	0.176	-0.387	0.698
HSP.post ~~				
PBA.rpre	0.369	0.219	1.689	0.091
PBA.post	1.286	0.396	3.248	0.001
PBA.rpre ~~				
PBA.post	0.363	0.117	3.090	0.002
.Healthy_Rel_Before.3n ~~				

.Healthy_Rel.3n	0.816	0.431	1.891	0.059
.Communicate_Before.3n ~~				
.Communicate.3n	0.435	0.164	2.653	0.008
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.620	0.250	2.484	0.013
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.059	0.504	0.118	0.906
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.677	0.676	1.001	0.317
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.644	0.499	1.290	0.197
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.178	0.282	0.630	0.529
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.166	0.162	1.021	0.307
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.763	0.220	3.473	0.001
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.596	0.266	2.243	0.025
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.842	0.207	4.070	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.695	0.267	2.607	0.009
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.358	0.222	1.611	0.107
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.931	0.385	2.418	0.016
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.781	0.310	2.517	0.012
Std.lv Std.all				
0.039 0.039				
0.620 0.620				
-0.041 -0.041				
0.205 0.205				
0.775 0.775				
0.328 0.328				
0.816 0.962				
0.435 1.007				
0.620 0.560				
0.059 0.043				

0.677	0.856
0.644	0.768
0.178	0.827
0.166	0.403
0.763	1.125
0.596	0.625
0.842	1.529
0.695	0.604
0.358	0.565
0.931	0.890
0.781	0.509

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	3.759	0.697	5.396	0.000	2.287	2.287
PBA.rpre	-0.814	0.116	-7.044	0.000	-0.743	-0.743
PBA.post	0.900	0.119	7.568	0.000	0.891	0.891
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000

.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.514	0.244	2.109	0.035	0.514	0.267
H_R_B.3 (V1t2)	3.532	0.598	5.905	0.000	3.532	1.833
H_R.3 1 (V1t1)	0.514	0.244	2.109	0.035	0.514	0.278
H_R.3 2 (V1t2)	3.532	0.598	5.905	0.000	3.532	1.909
C_B.3 1 (V2t1)	0.364	0.157	2.319	0.020	0.364	0.254
C_B.3 2 (V2t2)	2.326	0.323	7.212	0.000	2.326	1.623
Cmm.3 1 (V2t1)	0.364	0.157	2.319	0.020	0.364	0.327
Cmm.3 2 (V2t2)	2.326	0.323	7.212	0.000	2.326	2.092
CM_B.3 (V3t1)	0.691	0.224	3.077	0.002	0.691	0.410
CM_B.3 (V3t2)	3.245	0.428	7.580	0.000	3.245	1.929
CnM.3 1 (V3t1)	0.691	0.224	3.077	0.002	0.691	0.395
CnM.3 2 (V3t2)	3.245	0.428	7.580	0.000	3.245	1.858
RP_B.3 (V4t1)	1.233	0.341	3.619	0.000	1.233	0.625
RP_B.3 (V4t2)	4.041	0.820	4.930	0.000	4.041	2.047
RgP.3 1 (V4t1)	1.233	0.341	3.619	0.000	1.233	0.562
RgP.3 2 (V4t2)	4.041	0.820	4.930	0.000	4.041	1.842
LP_B.3 (V5t1)	1.114	0.400	2.787	0.005	1.114	0.432
LP_B.3 (V5t2)	4.760	1.125	4.231	0.000	4.760	1.846
LrP.3 1 (V5t1)	1.114	0.400	2.787	0.005	1.114	0.445
LrP.3 2 (V5t2)	4.760	1.125	4.231	0.000	4.760	1.903
PR_B.3 (V6t1)	1.259	0.349	3.608	0.000	1.259	0.560
PR_B.3 (V6t2)	4.246	0.787	5.396	0.000	4.246	1.888
PcR.3 1 (V6t1)	1.259	0.349	3.608	0.000	1.259	0.578
PcR.3 2 (V6t2)	4.246	0.787	5.396	0.000	4.246	1.949
WS_B.3 (V7t1)	0.612	0.234	2.612	0.009	0.612	0.323
WS_B.3 (V7t2)	3.339	0.615	5.430	0.000	3.339	1.763
WrS.3 1 (V7t1)	0.612	0.234	2.612	0.009	0.612	0.377
WrS.3 2 (V7t2)	3.339	0.615	5.430	0.000	3.339	2.060
LGU_B.3 (V8t1)	-0.783	0.102	-7.701	0.000	-0.783	-0.640
LGU_B.3 (V8t2)	0.713	0.093	7.634	0.000	0.713	0.583
LGU.3 1 (V8t1)	-0.783	0.102	-7.701	0.000	-0.783	-0.622
LGU.3 2 (V8t2)	0.713	0.093	7.634	0.000	0.713	0.566
PR_B.3 (V9t1)	-0.955	0.146	-6.559	0.000	-0.955	-0.579
PR_B.3 (V9t2)	0.596	0.103	5.792	0.000	0.596	0.361
PsR.3 1 (V9t1)	-0.955	0.146	-6.559	0.000	-0.955	-0.704
PsR.3 2 (V9t2)	0.596	0.103	5.792	0.000	0.596	0.439
GAP_B.3 (V101)	-1.204	0.126	-9.566	0.000	-1.204	-0.637

GAP_B.3 (V102)	0.645	0.123	5.243	0.000	0.645	0.341
GAP.3 1 (V101)	-1.204	0.126	-9.566	0.000	-1.204	-0.680
GAP.3 2 (V102)	0.645	0.123	5.243	0.000	0.645	0.364
FAL_B.3 (V111)	-1.140	0.120	-9.480	0.000	-1.140	-0.668
FAL_B.3 (V112)	0.626	0.107	5.866	0.000	0.626	0.367
FAL.3 1 (V111)	-1.140	0.120	-9.480	0.000	-1.140	-0.714
FAL.3 2 (V112)	0.626	0.107	5.866	0.000	0.626	0.392
F_B.3 1 (V121)	-1.176	0.154	-7.634	0.000	-1.176	-0.591
F_B.3 2 (V122)	0.665	0.146	4.545	0.000	0.665	0.334
Fgh.3 1 (V121)	-1.176	0.154	-7.634	0.000	-1.176	-0.738
Fgh.3 2 (V122)	0.665	0.146	4.545	0.000	0.665	0.418
FH_B.3 (V131)	-1.328	0.091	-14.615	0.000	-1.328	-0.845
FH_B.3 (V132)	0.488	0.127	3.855	0.000	0.488	0.311
FlH.3 1 (V131)	-1.328	0.091	-14.615	0.000	-1.328	-0.992
FlH.3 2 (V132)	0.488	0.127	3.855	0.000	0.488	0.365
RW_B.3 (V141)	-2.053	0.170	-12.104	0.000	-2.053	-0.873
RW_B.3 (V142)	0.531	0.136	3.898	0.000	0.531	0.226
RgW.3 1 (V141)	-2.053	0.170	-12.104	0.000	-2.053	-1.099
RgW.3 2 (V142)	0.531	0.136	3.898	0.000	0.531	0.284

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	2.711	0.977	2.774	0.006	1.000	1.000
HSP.post	2.702	1.257	2.150	0.032	1.000	1.000
PBA.rpre	1.199	0.200	5.996	0.000	1.000	1.000
PBA.post	1.021	0.204	5.003	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.269
.Commnct_Bfr.3n	1.000				1.000	0.487
.CnflctMngm_B.3	1.000				1.000	0.353
.RghtPrtnr_Bf.3	1.000				1.000	0.257
.LrnPrtnr_Bfr.3	1.000				1.000	0.150
.PcRltnshp_Bf.3	1.000				1.000	0.198
.WrnngSgns_Bf.3	1.000				1.000	0.279
.LrndGrwngU_B.3	0.298	0.093	3.214	0.001	0.298	0.199
.PstRltnshp_B.3	1.065	0.196	5.431	0.000	1.065	0.391
.GtAlngPrnt_B.3	0.981	0.205	4.776	0.000	0.981	0.275
.FrndshpsAL_B.3	0.556	0.144	3.851	0.000	0.556	0.191
.Fights_Befr.3n	1.833	0.245	7.494	0.000	1.833	0.463
.FlngsHrt_Bfr.3	0.893	0.153	5.830	0.000	0.893	0.362
.RghtndWrng_B.3	2.053	0.253	8.113	0.000	2.053	0.371
.Healthy_Rel.3n	0.719	0.332	2.167	0.030	0.719	0.210
.Communicate.3n	0.186	0.080	2.337	0.019	0.186	0.150
.CnflctMngmnt.3	1.226	0.374	3.276	0.001	1.226	0.402
.RightPartnr.3n	1.924	0.834	2.307	0.021	1.924	0.400
.LearnPartnr.3n	0.625	0.384	1.628	0.104	0.625	0.100
.PaceRltnshp.3n	0.703	0.301	2.339	0.019	0.703	0.148
.WarningSgns.3n	0.046	0.113	0.411	0.681	0.046	0.018
.LrndGrwngUp.3n	0.567	0.155	3.647	0.000	0.567	0.357

.PstRltnshps.3n	0.433	0.097	4.461	0.000	0.433	0.235
.GtAlngPrnts.3n	0.927	0.191	4.839	0.000	0.927	0.296
.FrndshpsArLk.3	0.545	0.082	6.673	0.000	0.545	0.214
.Fights.3n	0.724	0.205	3.533	0.000	0.724	0.285
.FeelingsHrt.3n	0.449	0.144	3.107	0.002	0.449	0.251
.RightndWrng.3n	0.533	0.165	3.228	0.001	0.533	0.153

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.519				0.519	1.000
Commnct_Bfr.3n	0.698				0.698	1.000
CnflctMngm_B.3	0.594				0.594	1.000
RghtPrtnr_Bf.3	0.507				0.507	1.000
LrnPrtnr_Bfr.3	0.388				0.388	1.000
PcRltnshp_Bf.3	0.445				0.445	1.000
WrngSgns_Bf.3	0.528				0.528	1.000
Healthy_Rel.3n	0.541				0.541	1.000
Communicate.3n	0.899				0.899	1.000
CnflctMngmnt.3	0.573				0.573	1.000
RightPartnr.3n	0.456				0.456	1.000
LearnPartnr.3n	0.400				0.400	1.000
PaceRltnshp.3n	0.459				0.459	1.000
WarningSgns.3n	0.617				0.617	1.000
LrndGrwngU_B.3	0.817				0.817	1.000
PstRltnshp_B.3	0.606				0.606	1.000
GtAlngPrnt_B.3	0.529				0.529	1.000
FrndshpsAL_B.3	0.586				0.586	1.000
Fights_Befr.3n	0.502				0.502	1.000
FlngsHrt_Bfr.3	0.636				0.636	1.000
RghtndWrng_B.3	0.425				0.425	1.000
LrndGrwngUp.3n	0.794				0.794	1.000
PstRltnshps.3n	0.737				0.737	1.000
GtAlngPrnts.3n	0.565				0.565	1.000
FrndshpsArLk.3	0.626				0.626	1.000
Fights.3n	0.628				0.628	1.000
FeelingsHrt.3n	0.747				0.747	1.000
RightndWrng.3n	0.535				0.535	1.000

6.5.7 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs op	rhs	mi	epc	sepc.lv
1	PBA.rpre =~	PastRelationships.3n	17.73901	-0.2790365	-0.3055786
2	HSP.post =~	FriendshipsAreLike.3n	16.56572	-0.3119690	-0.5128152
3	HSP.rpre =~	PastRelationships.3n	15.69355	-0.1680133	-0.2766526
4	PBA.rpre =~	Healthy_Rel_Before.3n	14.76748	0.4974304	0.5447462
5	HSP.post =~	FeelingsHurt.3n	13.73321	0.2517766	0.4138710
6	PBA.rpre =~	RightPartner_Before.3n	12.31770	-0.5573323	-0.6103460
	sepc.all	sepc.nox			
1	-0.2251403	-0.2251403			
2	-0.3212393	-0.3212393			
3	-0.2038285	-0.2038285			
4	0.2827675	0.2827675			
5	0.3092523	0.3092523			
6	-0.3091786	-0.3091786			

6.5.8 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c2.load, Fit.Rcomb.model.c2.thresh)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff	Pr(>Chisq)
Fit.Rcomb.model.c2.load	332			288.33			
Fit.Rcomb.model.c2.thresh	345			304.45	24.744	13	0.02494

Fit.Rcomb.model.c2.load

Fit.Rcomb.model.c2.thresh *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.5.9 Threshold Invariant 2

lavaan (0.6-1) converged normally after 130 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	300.251	407.471
Degrees of freedom	344	344
P-value (Chi-square)	0.957	0.010
Scaling correction factor		1.638
Shift parameter		224.181
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.985
Tucker-Lewis Index (TLI)	1.003	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.041	
90 Percent Confidence Interval	0.000 0.000	0.021	0.056
P-value RMSEA <= 0.05	1.000	0.829	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.089	0.089
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.647	0.855
Cm_B.3 (HSPL2)	0.623	0.143	4.361	0.000	1.027	0.716
CM_B.3 (HSPL3)	0.822	0.171	4.798	0.000	1.353	0.804
RP_B.3 (HSPL4)	1.034	0.266	3.885	0.000	1.702	0.862
LP_B.3 (HSPL5)	1.443	0.393	3.677	0.000	2.377	0.922
PR_B.3 (HSPL6)	1.223	0.297	4.124	0.000	2.014	0.896
WS_B.3 (HSPL7)	0.977	0.218	4.485	0.000	1.609	0.849
HSP.post =~						
Hl_R.3	1.000				1.644	0.889
Cmmn.3 (HSPL2)	0.623	0.143	4.361	0.000	1.025	0.922
CnfM.3 (HSPL3)	0.822	0.171	4.798	0.000	1.351	0.773
RghP.3 (HSPL4)	1.034	0.266	3.885	0.000	1.699	0.775
LrnP.3 (HSPL5)	1.443	0.393	3.677	0.000	2.373	0.949
PcRl.3 (HSPL6)	1.223	0.297	4.124	0.000	2.010	0.923
WrnS.3 (HSPL7)	0.977	0.218	4.485	0.000	1.606	0.991
PBA.rpre =~						
LGU_B.	1.000				1.161	0.893
PR_B.3 (PBAL2)	1.112	0.098	11.394	0.000	1.291	0.778
GAP_B. (PBAL3)	1.663	0.131	12.700	0.000	1.932	0.862
FAL_B. (PBAL4)	1.329	0.083	16.101	0.000	1.544	0.896
Fg_B.3 (PBAL5)	1.264	0.133	9.487	0.000	1.469	0.731
FH_B.3 (PBAL6)	1.099	0.081	13.516	0.000	1.277	0.797
RW_B.3 (PBAL7)	1.447	0.119	12.139	0.000	1.681	0.791
PBA.post =~						
LrGU.3	1.000				1.133	0.801
PstR.3 (PBAL2)	1.112	0.098	11.394	0.000	1.260	0.875
GtAP.3 (PBAL3)	1.663	0.131	12.700	0.000	1.885	0.842
FrAL.3 (PBAL4)	1.329	0.083	16.101	0.000	1.506	0.886
Fght.3 (PBAL5)	1.264	0.133	9.487	0.000	1.433	0.845
FlnH.3 (PBAL6)	1.099	0.081	13.516	0.000	1.245	0.866
RghW.3 (PBAL7)	1.447	0.119	12.139	0.000	1.640	0.920

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.105	0.286	0.368	0.713
PBA.rpre	1.186	0.289	4.107	0.000
PBA.post	-0.076	0.197	-0.388	0.698
HSP.post ~~				
PBA.rpre	0.392	0.231	1.701	0.089
PBA.post	1.443	0.436	3.311	0.001
PBA.rpre ~~				
PBA.post	0.431	0.136	3.173	0.002
.Healthy_Rel_Before.3n ~~				

.Healthy_Rel.3n	0.816	0.431	1.891	0.059
.Communicate_Before.3n ~~				
.Communicate.3n	0.435	0.164	2.653	0.008
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.620	0.250	2.484	0.013
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.059	0.504	0.118	0.906
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.677	0.676	1.001	0.317
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.644	0.499	1.290	0.197
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.178	0.282	0.630	0.529
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.199	0.194	1.026	0.305
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	0.817	0.230	3.549	0.000
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.875	0.385	2.273	0.023
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	0.909	0.214	4.256	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.751	0.284	2.645	0.008
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.393	0.242	1.623	0.105
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.805	0.333	2.415	0.016
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.781	0.310	2.518	0.012
Std.lv Std.all				
0.039 0.039				
0.620 0.620				
-0.041 -0.041				
0.206 0.206				
0.775 0.775				
0.328 0.328				
0.816 0.962				
0.435 1.008				
0.620 0.560				
0.059 0.043				

0.677	0.856
0.644	0.768
0.178	0.827
0.199	0.402
0.817	1.122
0.875	0.639
0.909	1.507
0.751	0.603
0.393	0.565
0.805	0.888
0.781	0.509

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	3.759	0.697	5.395	0.000	2.287	2.287
PBA.rpre	-0.841	0.124	-6.781	0.000	-0.724	-0.724
PBA.post	1.090	0.130	8.368	0.000	0.962	0.962
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000

.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.514	0.244	2.109	0.035	0.514	0.267
H_R_B.3 (V1t2)	3.532	0.598	5.904	0.000	3.532	1.833
H_R.3 1 (V1t1)	0.514	0.244	2.109	0.035	0.514	0.278
H_R.3 2 (V1t2)	3.532	0.598	5.904	0.000	3.532	1.909
C_B.3 1 (V2t1)	0.364	0.157	2.320	0.020	0.364	0.254
C_B.3 2 (V2t2)	2.326	0.323	7.211	0.000	2.326	1.623
Cmm.3 1 (V2t1)	0.364	0.157	2.320	0.020	0.364	0.327
Cmm.3 2 (V2t2)	2.326	0.323	7.211	0.000	2.326	2.092
CM_B.3 (V3t1)	0.691	0.224	3.077	0.002	0.691	0.410
CM_B.3 (V3t2)	3.245	0.428	7.580	0.000	3.245	1.929
CnM.3 1 (V3t1)	0.691	0.224	3.077	0.002	0.691	0.395
CnM.3 2 (V3t2)	3.245	0.428	7.580	0.000	3.245	1.858
RP_B.3 (V4t1)	1.233	0.341	3.619	0.000	1.233	0.625
RP_B.3 (V4t2)	4.041	0.819	4.932	0.000	4.041	2.047
RgP.3 1 (V4t1)	1.233	0.341	3.619	0.000	1.233	0.562
RgP.3 2 (V4t2)	4.041	0.819	4.932	0.000	4.041	1.842
LP_B.3 (V5t1)	1.114	0.400	2.787	0.005	1.114	0.432
LP_B.3 (V5t2)	4.761	1.126	4.229	0.000	4.761	1.846
LrP.3 1 (V5t1)	1.114	0.400	2.787	0.005	1.114	0.445
LrP.3 2 (V5t2)	4.761	1.126	4.229	0.000	4.761	1.903
PR_B.3 (V6t1)	1.259	0.349	3.608	0.000	1.259	0.560
PR_B.3 (V6t2)	4.245	0.787	5.395	0.000	4.245	1.888
PcR.3 1 (V6t1)	1.259	0.349	3.608	0.000	1.259	0.578
PcR.3 2 (V6t2)	4.245	0.787	5.395	0.000	4.245	1.949
WS_B.3 (V7t1)	0.612	0.234	2.613	0.009	0.612	0.323
WS_B.3 (V7t2)	3.339	0.615	5.430	0.000	3.339	1.763
WrS.3 1 (V7t1)	0.612	0.234	2.613	0.009	0.612	0.378
WrS.3 2 (V7t2)	3.339	0.615	5.430	0.000	3.339	2.060
LGU_B.3 (V8t1)	-0.802	0.110	-7.289	0.000	-0.802	-0.617
LGU_B.3 (V8t2)	0.843	0.104	8.102	0.000	0.843	0.648
LGU.3 1 (V8t1)	-0.802	0.110	-7.289	0.000	-0.802	-0.567
LGU.3 2 (V8t2)	0.843	0.104	8.102	0.000	0.843	0.596
PR_B.3 (V9t1)	-0.928	0.150	-6.201	0.000	-0.928	-0.559
PR_B.3 (V9t2)	0.694	0.108	6.421	0.000	0.694	0.418
PsR.3 1 (V9t1)	-0.928	0.150	-6.201	0.000	-0.928	-0.644
PsR.3 2 (V9t2)	0.694	0.108	6.421	0.000	0.694	0.482
GAP_B.3 (V101)	-1.399	0.154	-9.080	0.000	-1.399	-0.625

GAP_B.3 (V10T)	0.360	0.225	1.600	0.110	0.360	0.161
GAP.3 1 (V101)	-1.399	0.154	-9.080	0.000	-1.399	-0.625
GAP.3 2 (V102)	1.277	0.213	6.003	0.000	1.277	0.570
FAL_B.3 (V111)	-1.114	0.126	-8.843	0.000	-1.114	-0.647
FAL_B.3 (V112)	0.720	0.112	6.440	0.000	0.720	0.418
FAL.3 1 (V111)	-1.114	0.126	-8.843	0.000	-1.114	-0.655
FAL.3 2 (V112)	0.720	0.112	6.440	0.000	0.720	0.424
F_B.3 1 (V121)	-1.157	0.158	-7.342	0.000	-1.157	-0.576
F_B.3 2 (V122)	0.773	0.156	4.949	0.000	0.773	0.385
Fgh.3 1 (V121)	-1.157	0.158	-7.342	0.000	-1.157	-0.683
Fgh.3 2 (V122)	0.773	0.156	4.949	0.000	0.773	0.456
FH_B.3 (V131)	-1.329	0.097	-13.657	0.000	-1.329	-0.830
FH_B.3 (V132)	0.583	0.133	4.388	0.000	0.583	0.364
FlH.3 1 (V131)	-1.329	0.097	-13.657	0.000	-1.329	-0.924
FlH.3 2 (V132)	0.583	0.133	4.388	0.000	0.583	0.405
RW_B.3 (V141)	-1.835	0.151	-12.139	0.000	-1.835	-0.864
RW_B.3 (V142)	0.583	0.132	4.424	0.000	0.583	0.274
RgW.3 1 (V141)	-1.835	0.151	-12.139	0.000	-1.835	-1.030
RgW.3 2 (V142)	0.583	0.132	4.424	0.000	0.583	0.327

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	2.712	0.978	2.774	0.006	1.000	1.000
HSP.post	2.702	1.257	2.149	0.032	1.000	1.000
PBA.rpre	1.349	0.234	5.772	0.000	1.000	1.000
PBA.post	1.284	0.240	5.348	0.000	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.269
.Commnct_Bfr.3n	1.000				1.000	0.487
.CnflctMngm_B.3	1.000				1.000	0.353
.RghtPrtnr_Bf.3	1.000				1.000	0.257
.LrnPrtnr_Bfr.3	1.000				1.000	0.150
.PcRltnshp_Bf.3	1.000				1.000	0.198
.WrngSgns_Bf.3	1.000				1.000	0.279
.LrndGrwngU_B.3	0.343	0.105	3.258	0.001	0.343	0.202
.PstRltnshp_B.3	1.085	0.198	5.468	0.000	1.085	0.394
.GtAlngPrnt_B.3	1.286	0.329	3.905	0.000	1.286	0.256
.FrndshpsAL_B.3	0.583	0.146	3.984	0.000	0.583	0.197
.Fights_Befr.3n	1.885	0.249	7.566	0.000	1.885	0.466
.FlngsHrt_Bfr.3	0.933	0.154	6.061	0.000	0.933	0.364
.RghtndWrng_B.3	1.688	0.226	7.458	0.000	1.688	0.374
.Healthy_Rel.3n	0.719	0.332	2.167	0.030	0.719	0.210
.Communicate.3n	0.186	0.080	2.336	0.019	0.186	0.150
.CnflctMngmnt.3	1.226	0.374	3.275	0.001	1.226	0.402
.RightPartnr.3n	1.924	0.834	2.308	0.021	1.924	0.400
.LearnPartnr.3n	0.626	0.384	1.628	0.104	0.626	0.100
.PaceRltnshp.3n	0.703	0.301	2.339	0.019	0.703	0.148
.WarningSgns.3n	0.046	0.113	0.410	0.682	0.046	0.018
.LrndGrwngUp.3n	0.715	0.193	3.696	0.000	0.715	0.358

.PstRltnshps.3n	0.488	0.108	4.513	0.000	0.488	0.235
.GtAlngPrnts.3n	1.458	0.270	5.408	0.000	1.458	0.291
.FrndshpsArLk.3	0.623	0.092	6.761	0.000	0.623	0.216
.Fights.3n	0.823	0.227	3.623	0.000	0.823	0.286
.FeelingsHrt.3n	0.519	0.165	3.151	0.002	0.519	0.251
.RightndWrng.3n	0.486	0.148	3.293	0.001	0.486	0.153

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.519				0.519	1.000
Commnct_Bfr.3n	0.698				0.698	1.000
CnflctMngm_B.3	0.594				0.594	1.000
RghtPrtnr_Bf.3	0.507				0.507	1.000
LrnPrtnr_Bfr.3	0.388				0.388	1.000
PcRltnshp_Bf.3	0.445				0.445	1.000
WrngSgns_Bf.3	0.528				0.528	1.000
Healthy_Rel.3n	0.541				0.541	1.000
Communicate.3n	0.899				0.899	1.000
CnflctMngmnt.3	0.573				0.573	1.000
RightPartnr.3n	0.456				0.456	1.000
LearnPartnr.3n	0.400				0.400	1.000
PaceRltnshp.3n	0.459				0.459	1.000
WarningSgns.3n	0.617				0.617	1.000
LrndGrwngU_B.3	0.769				0.769	1.000
PstRltnshp_B.3	0.603				0.603	1.000
GtAlngPrnt_B.3	0.446				0.446	1.000
FrndshpsAL_B.3	0.581				0.581	1.000
Fights_Befr.3n	0.497				0.497	1.000
FlngsHrt_Bfr.3	0.625				0.625	1.000
RghtndWrng_B.3	0.471				0.471	1.000
LrndGrwngUp.3n	0.707				0.707	1.000
PstRltnshps.3n	0.694				0.694	1.000
GtAlngPrnts.3n	0.447				0.447	1.000
FrndshpsArLk.3	0.588				0.588	1.000
Fights.3n	0.590				0.590	1.000
FeelingsHrt.3n	0.695				0.695	1.000
RightndWrng.3n	0.561				0.561	1.000

6.5.10 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi	epc	sepc.lv
1	HSP.post	=~	FriendshipsAreLike.3n	18.97753	-0.3556026	-0.5845806
2	PBA.rpre	=~	PastRelationships.3n	17.15198	-0.2744086	-0.3187188
3	HSP.rpre	=~	PastRelationships.3n	15.69151	-0.1782886	-0.2935897
4	PBA.rpre	=~	Healthy_Rel_Before.3n	14.74573	0.4685741	0.5442371
5	PBA.rpre	=~	RightPartner_Before.3n	12.37233	-0.5267097	-0.6117601
6	HSP.post	=~	FeelingsHurt.3n	12.17791	0.2540983	0.4177162
	sepc.all		sepc.nox			
1				-0.3437476		-0.3437476
2				-0.2212281		-0.2212281
3				-0.2037856		-0.2037856
4				0.2824908		0.2824908
5				-0.3098868		-0.3098868
6				0.2903138		0.2903138

6.5.11 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c2.load, Fit.Rcomb.model.c2.thresh2)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff
Fit.Rcomb.model.c2.load	332			288.33		
Fit.Rcomb.model.c2.thresh2	344			300.25	18.52	12
				Pr(>Chisq)		
Fit.Rcomb.model.c2.load						
Fit.Rcomb.model.c2.thresh2				0.1008		

6.5.12 Unique Invariant

lavaan (0.6-1) converged normally after 140 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	375.419	460.592
Degrees of freedom	364	364
P-value (Chi-square)	0.329	0.000
Scaling correction factor		1.690
Shift parameter		238.395
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	0.999	0.977
Tucker-Lewis Index (TLI)	0.999	0.976
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.017	0.049	
90 Percent Confidence Interval	0.000 0.039	0.034	0.062
P-value RMSEA <= 0.05	0.997	0.532	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.094	0.094
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.658	0.856
Cm_B.3 (HSPL2)	0.947	0.166	5.701	0.000	1.570	0.843
CM_B.3 (HSPL3)	0.705	0.110	6.433	0.000	1.169	0.760
RP_B.3 (HSPL4)	0.779	0.126	6.176	0.000	1.291	0.791
LP_B.3 (HSPL5)	1.598	0.311	5.134	0.000	2.649	0.936
PR_B.3 (HSPL6)	1.310	0.230	5.701	0.000	2.172	0.908
WS_B.3 (HSPL7)	1.767	0.449	3.936	0.000	2.929	0.946
HSP.post =~						
Hl_R.3	1.000				1.896	0.885
Cmmn.3 (HSPL2)	0.947	0.166	5.701	0.000	1.796	0.874
CnfM.3 (HSPL3)	0.705	0.110	6.433	0.000	1.338	0.801
RghP.3 (HSPL4)	0.779	0.126	6.176	0.000	1.477	0.828
LrnP.3 (HSPL5)	1.598	0.311	5.134	0.000	3.030	0.950
PcRl.3 (HSPL6)	1.310	0.230	5.701	0.000	2.485	0.928
WrnS.3 (HSPL7)	1.767	0.449	3.936	0.000	3.351	0.958
PBA.rpre =~						
LGU_B.	1.000				1.469	0.827
PR_B.3 (PBAL2)	0.943	0.117	8.064	0.000	1.385	0.811
GAP_B. (PBAL3)	1.174	0.231	5.072	0.000	1.724	0.865
FAL_B. (PBAL4)	1.247	0.169	7.367	0.000	1.832	0.878
Fg_B.3 (PBAL5)	0.831	0.136	6.131	0.000	1.221	0.774
FH_B.3 (PBAL6)	0.939	0.143	6.585	0.000	1.380	0.810
RW_B.3 (PBAL7)	1.078	0.153	7.044	0.000	1.583	0.845
PBA.post =~						
LrGU.3	1.000				1.734	0.866
PstR.3 (PBAL2)	0.943	0.117	8.064	0.000	1.635	0.853
GtAP.3 (PBAL3)	1.174	0.231	5.072	0.000	2.036	0.838
FrAL.3 (PBAL4)	1.247	0.169	7.367	0.000	2.162	0.908
Fght.3 (PBAL5)	0.831	0.136	6.131	0.000	1.441	0.822
FlnH.3 (PBAL6)	0.939	0.143	6.585	0.000	1.629	0.852
RghW.3 (PBAL7)	1.078	0.153	7.044	0.000	1.869	0.882

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.119	0.330	0.360	0.719
PBA.rpre	1.457	0.392	3.718	0.000
PBA.post	-0.107	0.292	-0.366	0.714
HSP.post ~~				
PBA.rpre	0.567	0.345	1.643	0.100
PBA.post	2.574	0.782	3.293	0.001
PBA.rpre ~~				
PBA.post	0.825	0.354	2.333	0.020
.Healthy_Rel_Before.3n ~~				

.Healthy_Rel.3n	0.954	0.419	2.277	0.023
.Communicate_Before.3n ~~				
.Communicate.3n	1.035	0.339	3.056	0.002
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.545	0.233	2.341	0.019
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.044	0.340	0.128	0.898
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.952	0.855	1.113	0.266
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.845	0.631	1.339	0.181
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.611	0.989	0.618	0.537
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.394	0.398	0.990	0.322
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	1.115	0.391	2.852	0.004
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.860	0.503	1.708	0.088
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.554	0.430	3.616	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.600	0.247	2.429	0.015
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.565	0.376	1.502	0.133
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.833	0.400	2.079	0.038
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.417	0.151	2.759	0.006
Std.lv Std.all				
0.038 0.038				
0.598 0.598				
-0.037 -0.037				
0.203 0.203				
0.783 0.783				
0.324 0.324				
0.954 0.954				
1.035 1.035				
0.545 0.545				
0.044 0.044				

0.952	0.952
0.845	0.845
0.611	0.611
0.394	0.394
1.115	1.115
0.860	0.650
1.554	1.554
0.600	0.600
0.565	0.565
0.833	0.833
0.417	0.417

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	3.971	0.556	7.139	0.000	2.094	2.094
PBA.rpre	-1.083	0.188	-5.772	0.000	-0.737	-0.737
PBA.post	1.672	0.250	6.682	0.000	0.964	0.964
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000

.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.475	0.240	1.977	0.048	0.475	0.245
H_R_B.3 (V1t2)	3.652	0.487	7.491	0.000	3.652	1.886
H_R.3 1 (V1t1)	0.475	0.240	1.977	0.048	0.475	0.222
H_R.3 2 (V1t2)	3.652	0.487	7.491	0.000	3.652	1.704
C_B.3 1 (V2t1)	0.350	0.213	1.642	0.101	0.350	0.188
C_B.3 2 (V2t2)	3.506	0.460	7.621	0.000	3.506	1.883
Cmm.3 1 (V2t1)	0.350	0.213	1.642	0.101	0.350	0.170
Cmm.3 2 (V2t2)	3.506	0.460	7.621	0.000	3.506	1.706
CM_B.3 (V3t1)	0.587	0.196	3.002	0.003	0.587	0.382
CM_B.3 (V3t2)	2.951	0.289	10.223	0.000	2.951	1.918
CnM.3 1 (V3t1)	0.587	0.196	3.002	0.003	0.587	0.352
CnM.3 2 (V3t2)	2.951	0.289	10.223	0.000	2.951	1.767
RP_B.3 (V4t1)	0.990	0.234	4.235	0.000	0.990	0.607
RP_B.3 (V4t2)	3.232	0.386	8.379	0.000	3.232	1.979
RgP.3 1 (V4t1)	0.990	0.234	4.235	0.000	0.990	0.555
RgP.3 2 (V4t2)	3.232	0.386	8.379	0.000	3.232	1.812
LP_B.3 (V5t1)	1.158	0.373	3.100	0.002	1.158	0.409
LP_B.3 (V5t2)	5.466	0.954	5.729	0.000	5.466	1.930
LrP.3 1 (V5t1)	1.158	0.373	3.100	0.002	1.158	0.363
LrP.3 2 (V5t2)	5.466	0.954	5.729	0.000	5.466	1.713
PR_B.3 (V6t1)	1.274	0.353	3.610	0.000	1.274	0.533
PR_B.3 (V6t2)	4.716	0.724	6.517	0.000	4.716	1.972
PcR.3 1 (V6t1)	1.274	0.353	3.610	0.000	1.274	0.476
PcR.3 2 (V6t2)	4.716	0.724	6.517	0.000	4.716	1.761
WS_B.3 (V7t1)	0.913	0.418	2.183	0.029	0.913	0.295
WS_B.3 (V7t2)	6.130	1.525	4.019	0.000	6.130	1.980
WrS.3 1 (V7t1)	0.913	0.418	2.183	0.029	0.913	0.261
WrS.3 2 (V7t2)	6.130	1.525	4.019	0.000	6.130	1.753
LGU_B.3 (V8t1)	-1.021	0.145	-7.051	0.000	-1.021	-0.574
LGU_B.3 (V8t2)	1.280	0.144	8.867	0.000	1.280	0.720
LGU.3 1 (V8t1)	-1.021	0.145	-7.051	0.000	-1.021	-0.510
LGU.3 2 (V8t2)	1.280	0.144	8.867	0.000	1.280	0.639
PR_B.3 (V9t1)	-1.056	0.170	-6.196	0.000	-1.056	-0.618
PR_B.3 (V9t2)	0.802	0.136	5.907	0.000	0.802	0.470
PsR.3 1 (V9t1)	-1.056	0.170	-6.196	0.000	-1.056	-0.551
PsR.3 2 (V9t2)	0.802	0.136	5.907	0.000	0.802	0.419
GAP_B.3 (V101)	-1.325	0.217	-6.107	0.000	-1.325	-0.665

GAP_B.3 (V10T)	0.294	0.194	1.518	0.129	0.294	0.147
GAP.3 1 (V101)	-1.325	0.217	-6.107	0.000	-1.325	-0.546
GAP.3 2 (V102)	1.381	0.341	4.047	0.000	1.381	0.569
FAL_B.3 (V111)	-1.382	0.179	-7.711	0.000	-1.382	-0.662
FAL_B.3 (V112)	0.944	0.148	6.372	0.000	0.944	0.452
FAL.3 1 (V111)	-1.382	0.179	-7.711	0.000	-1.382	-0.580
FAL.3 2 (V112)	0.944	0.148	6.372	0.000	0.944	0.396
F_B.3 1 (V121)	-1.061	0.132	-8.029	0.000	-1.061	-0.672
F_B.3 2 (V122)	0.656	0.157	4.178	0.000	0.656	0.416
Fgh.3 1 (V121)	-1.061	0.132	-8.029	0.000	-1.061	-0.605
Fgh.3 2 (V122)	0.656	0.157	4.178	0.000	0.656	0.374
FH_B.3 (V131)	-1.508	0.166	-9.109	0.000	-1.508	-0.885
FH_B.3 (V132)	0.687	0.156	4.418	0.000	0.687	0.403
FlH.3 1 (V131)	-1.508	0.166	-9.109	0.000	-1.508	-0.789
FlH.3 2 (V132)	0.687	0.156	4.418	0.000	0.687	0.360
RW_B.3 (V141)	-1.862	0.168	-11.079	0.000	-1.862	-0.995
RW_B.3 (V142)	0.515	0.143	3.600	0.000	0.515	0.275
RgW.3 1 (V141)	-1.862	0.168	-11.079	0.000	-1.862	-0.879
RgW.3 2 (V142)	0.515	0.143	3.600	0.000	0.515	0.243

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	2.747	0.828	3.317	0.001	1.000	1.000
HSP.post	3.595	1.146	3.137	0.002	1.000	1.000
PBA.rpre	2.158	0.544	3.970	0.000	1.000	1.000
PBA.post	3.008	0.924	3.254	0.001	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.267
.Commnct_Bfr.3n	1.000				1.000	0.289
.CnflctMngm_B.3	1.000				1.000	0.422
.RghtPrtnr_Bf.3	1.000				1.000	0.375
.LrnPrtnr_Bfr.3	1.000				1.000	0.125
.PcRltnshp_Bf.3	1.000				1.000	0.175
.WrnngSgns_Bf.3	1.000				1.000	0.104
.LrndGrwngU_B.3	1.000				1.000	0.317
.PstRltnshp_B.3	1.000				1.000	0.343
.GtAlngPrnt_B.3	1.000				1.000	0.252
.FrndshpsAL_B.3	1.000				1.000	0.230
.Fights_Befr.3n	1.000				1.000	0.402
.FlngsHrt_Bfr.3	1.000				1.000	0.344
.RghtndWrng_B.3	1.000				1.000	0.285
.Healthy_Rel.3n	1.000				1.000	0.218
.Communicate.3n	1.000				1.000	0.237
.CnflctMngmnt.3	1.000				1.000	0.359
.RightPartnr.3n	1.000				1.000	0.314
.LearnPartnr.3n	1.000				1.000	0.098
.PaceRltnshp.3n	1.000				1.000	0.139
.WarningSgns.3n	1.000				1.000	0.082
.LrndGrwngUp.3n	1.000				1.000	0.250

.PstRltnshps.3n	1.000				1.000	0.272
.GtAlngPrnts.3n	1.750	0.695	2.520	0.012	1.750	0.297
.FrndshpsArLk.3	1.000				1.000	0.176
.Fights.3n	1.000				1.000	0.325
.FeelingsHrt.3n	1.000				1.000	0.274
.RightndWrng.3n	1.000				1.000	0.223

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.517				0.517	1.000
Commnct_Bfr.3n	0.537				0.537	1.000
CnflctMngm_B.3	0.650				0.650	1.000
RghtPrtnr_Bf.3	0.612				0.612	1.000
LrnPrtnr_Bfr.3	0.353				0.353	1.000
PcRltnshp_Bf.3	0.418				0.418	1.000
WrngSgns_Bf.3	0.323				0.323	1.000
Healthy_Rel.3n	0.466				0.466	1.000
Communicate.3n	0.486				0.486	1.000
CnflctMngmnt.3	0.599				0.599	1.000
RightPartnr.3n	0.561				0.561	1.000
LearnPartnr.3n	0.313				0.313	1.000
PaceRltnshp.3n	0.373				0.373	1.000
WarningSgns.3n	0.286				0.286	1.000
LrndGrwngU_B.3	0.563				0.563	1.000
PstRltnshp_B.3	0.585				0.585	1.000
GtAlngPrnt_B.3	0.502				0.502	1.000
FrndshpsAL_B.3	0.479				0.479	1.000
Fights_Befr.3n	0.634				0.634	1.000
FlngsHrt_Bfr.3	0.587				0.587	1.000
RghtndWrng_B.3	0.534				0.534	1.000
LrndGrwngUp.3n	0.500				0.500	1.000
PstRltnshps.3n	0.522				0.522	1.000
GtAlngPrnts.3n	0.412				0.412	1.000
FrndshpsArLk.3	0.420				0.420	1.000
Fights.3n	0.570				0.570	1.000
FeelingsHrt.3n	0.523				0.523	1.000
RightndWrng.3n	0.472				0.472	1.000

6.5.13 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs	op	rhs	mi
1	Communicate.3n	~~	Communicate.3n	26.16376
2	Communicate_Before.3n	~~	Communicate_Before.3n	25.13914
3	HSP.post	==	FriendshipsAreLike.3n	22.47603
4	PBA.post	==	LearnedGrowingUp.3n	15.20950
5	PBA.rpre	==	LearnedGrowingUp_Before.3n	15.20875
6	PBA.rpre	==	PastRelationships.3n	14.79238
7	HSP.rpre	==	PastRelationships.3n	14.69168
8	WarningSigns_Before.3n	~~	WarningSigns_Before.3n	13.40437
9	WarningSigns.3n	~~	WarningSigns.3n	13.40432
10	PBA.rpre	==	Healthy_Rel_Before.3n	12.57399
11	LearnedGrowingUp.3n	~~	LearnedGrowingUp.3n	12.00664
12	LearnedGrowingUp_Before.3n	~~	LearnedGrowingUp_Before.3n	12.00565
13	Communicate.3n	~~	LearnPartner.3n	11.12402
14	HSP.post	==	LearnedGrowingUp.3n	10.34116
15	Communicate_Before.3n	~~	WarningSigns_Before.3n	10.12505

	epc	sepc.lv	sepc.all	sepc.nox
1	-1.8608822	-1.0000000	-0.23666313	-0.23666313
2	1.8189317	1.0000000	0.28861087	0.28861087
3	-0.4237912	-0.8035461	-0.33730660	-0.33730660
4	-0.6355409	-1.1022365	-0.55057521	-0.55057521
5	0.6355253	0.9336819	0.52537003	0.52537003
6	-0.2602728	-0.3823798	-0.19951260	-0.19951260
7	-0.2236684	-0.3707387	-0.19343867	-0.19343867
8	3.0598959	1.0000000	0.10436603	0.10436603
9	-3.0598901	-1.0000000	-0.08176913	-0.08176913
10	0.2897186	0.4256401	0.21987496	0.21987496
11	1.1947291	1.0000000	0.24950759	0.24950759
12	-1.1946799	-1.0000000	-0.31661586	-0.31661586
13	0.8877619	0.8877619	0.88776185	0.88776185
14	-0.2293990	-0.4349610	-0.21726624	-0.21726624
15	-1.9323656	-1.9323656	-1.93236563	-1.93236563

6.5.14 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c2.thresh2, Fit.Rcomb.model.c2.unique)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff
Fit.Rcomb.model.c2.thresh2	344			300.25		
Fit.Rcomb.model.c2.unique	364			375.42	71.232	20

Pr(>Chisq)

Fit.Rcomb.model.c2.thresh2

Fit.Rcomb.model.c2.unique 1.145e-07 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.5.15 Unique Invariant 2

lavaan (0.6-1) converged normally after 147 iterations

	Used	Total
Number of observations	111	134
Estimator	DWLS	Robust
Model Fit Test Statistic	322.337	429.806
Degrees of freedom	361	361
P-value (Chi-square)	0.929	0.007
Scaling correction factor		1.669
Shift parameter		236.667
for simple second-order correction (Mplus variant)		

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.002	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.042	
90 Percent Confidence Interval	0.000 0.011	0.023	0.056
P-value RMSEA <= 0.05	1.000	0.818	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.090	0.090
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured
Standard Errors	Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.904	0.885
Cm_B.3 (HSPL2)	0.538	0.111	4.837	0.000	1.024	0.715
CM_B.3 (HSPL3)	0.685	0.109	6.301	0.000	1.304	0.794
RP_B.3 (HSPL4)	0.737	0.119	6.190	0.000	1.404	0.815
LP_B.3 (HSPL5)	1.531	0.290	5.285	0.000	2.915	0.946
PR_B.3 (HSPL6)	1.263	0.215	5.887	0.000	2.405	0.923
WS_B.3 (HSPL7)	0.840	0.175	4.811	0.000	1.599	0.848
HSP.post =~						
Hl_R.3	1.000				1.817	0.876
Cmmn.3 (HSPL2)	0.538	0.111	4.837	0.000	0.977	0.923
CnfM.3 (HSPL3)	0.685	0.109	6.301	0.000	1.244	0.779
RghP.3 (HSPL4)	0.737	0.119	6.190	0.000	1.339	0.801
LrnP.3 (HSPL5)	1.531	0.290	5.285	0.000	2.781	0.941
PcRl.3 (HSPL6)	1.263	0.215	5.887	0.000	2.294	0.917
WrnS.3 (HSPL7)	0.840	0.175	4.811	0.000	1.525	0.993
PBA.rpre =~						
LGU_B.	1.000				1.930	0.888
PR_B.3 (PBAL2)	0.681	0.109	6.261	0.000	1.314	0.796
GAP_B. (PBAL3)	0.889	0.195	4.554	0.000	1.715	0.864
FAL_B. (PBAL4)	0.910	0.155	5.854	0.000	1.757	0.869
Fg_B.3 (PBAL5)	0.596	0.112	5.320	0.000	1.151	0.755
FH_B.3 (PBAL6)	0.686	0.127	5.397	0.000	1.324	0.798
RW_B.3 (PBAL7)	0.774	0.143	5.420	0.000	1.494	0.831
PBA.post =~						
LrGU.3	1.000				2.483	0.803
PstR.3 (PBAL2)	0.681	0.109	6.261	0.000	1.690	0.861
GtAP.3 (PBAL3)	0.889	0.195	4.554	0.000	2.206	0.843
FrAL.3 (PBAL4)	0.910	0.155	5.854	0.000	2.260	0.914
Fght.3 (PBAL5)	0.596	0.112	5.320	0.000	1.481	0.829
FlnH.3 (PBAL6)	0.686	0.127	5.397	0.000	1.703	0.862
RghW.3 (PBAL7)	0.774	0.143	5.420	0.000	1.922	0.887

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.131	0.371	0.353	0.724
PBA.rpre	2.247	0.638	3.520	0.000
PBA.post	-0.184	0.490	-0.375	0.707
HSP.post ~~				
PBA.rpre	0.714	0.438	1.631	0.103
PBA.post	3.519	1.117	3.150	0.002
PBA.rpre ~~				
PBA.post	1.561	0.757	2.063	0.039
.Healthy_Rel_Before.3n ~~				

.Healthy_Rel.3n	1.022	0.450	2.268	0.023
.Communicate_Before.3n ~~				
.Communicate.3n	0.414	0.155	2.668	0.008
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.556	0.239	2.328	0.020
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.043	0.336	0.128	0.898
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.958	0.858	1.117	0.264
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.858	0.643	1.334	0.182
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.170	0.266	0.640	0.522
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.741	0.750	0.988	0.323
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	1.108	0.388	2.852	0.004
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.911	0.542	1.682	0.093
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.556	0.436	3.567	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.596	0.242	2.459	0.014
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.566	0.379	1.494	0.135
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.822	0.391	2.099	0.036
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.476	0.132	3.605	0.000
Std.lv Std.all				
0.038 0.038				
0.611 0.611				
-0.039 -0.039				
0.204 0.204				
0.780 0.780				
0.326 0.326				
1.022 1.022				
0.414 1.016				
0.556 0.556				
0.043 0.043				

0.958	0.958
0.858	0.858
0.170	0.939
0.741	0.402
1.108	1.108
0.911	0.647
1.556	1.556
0.596	0.596
0.566	0.566
0.822	0.822
0.476	0.476

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	4.239	0.617	6.866	0.000	2.334	2.334
PBA.rpre	-1.475	0.298	-4.942	0.000	-0.764	-0.764
PBA.post	2.346	0.453	5.176	0.000	0.945	0.945
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000
.PstRltnshps.3n	0.000				0.000	0.000

.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.580	0.271	2.140	0.032	0.580	0.269
H_R_B.3 (V1t2)	3.975	0.567	7.009	0.000	3.975	1.848
H_R.3 1 (V1t1)	0.580	0.271	2.140	0.032	0.580	0.279
H_R.3 2 (V1t2)	3.975	0.567	7.009	0.000	3.975	1.917
C_B.3 1 (V2t1)	0.380	0.150	2.533	0.011	0.380	0.265
C_B.3 2 (V2t2)	2.273	0.323	7.043	0.000	2.273	1.588
Cmm.3 1 (V2t1)	0.380	0.150	2.533	0.011	0.380	0.359
Cmm.3 2 (V2t2)	2.273	0.323	7.043	0.000	2.273	2.148
CM_B.3 (V3t1)	0.694	0.216	3.215	0.001	0.694	0.422
CM_B.3 (V3t2)	3.082	0.310	9.945	0.000	3.082	1.875
CnM.3 1 (V3t1)	0.694	0.216	3.215	0.001	0.694	0.435
CnM.3 2 (V3t2)	3.082	0.310	9.945	0.000	3.082	1.931
RP_B.3 (V4t1)	1.077	0.257	4.191	0.000	1.077	0.625
RP_B.3 (V4t2)	3.262	0.385	8.465	0.000	3.262	1.893
RgP.3 1 (V4t1)	1.077	0.257	4.191	0.000	1.077	0.644
RgP.3 2 (V4t2)	3.262	0.385	8.465	0.000	3.262	1.952
LP_B.3 (V5t1)	1.347	0.414	3.256	0.001	1.347	0.437
LP_B.3 (V5t2)	5.701	0.959	5.946	0.000	5.701	1.850
LrP.3 1 (V5t1)	1.347	0.414	3.256	0.001	1.347	0.456
LrP.3 2 (V5t2)	5.701	0.959	5.946	0.000	5.701	1.929
PR_B.3 (V6t1)	1.478	0.398	3.714	0.000	1.478	0.568
PR_B.3 (V6t2)	4.944	0.752	6.578	0.000	4.944	1.898
PcR.3 1 (V6t1)	1.478	0.398	3.714	0.000	1.478	0.591
PcR.3 2 (V6t2)	4.944	0.752	6.578	0.000	4.944	1.976
WS_B.3 (V7t1)	0.621	0.225	2.761	0.006	0.621	0.330
WS_B.3 (V7t2)	3.252	0.603	5.390	0.000	3.252	1.724
WrS.3 1 (V7t1)	0.621	0.225	2.761	0.006	0.621	0.405
WrS.3 2 (V7t2)	3.252	0.603	5.390	0.000	3.252	2.117
LGU_B.3 (V8t1)	-1.443	0.229	-6.296	0.000	-1.443	-0.664
LGU_B.3 (V8t2)	1.560	0.207	7.548	0.000	1.560	0.718
LGU.3 1 (V8t1)	-1.443	0.229	-6.296	0.000	-1.443	-0.467
LGU.3 2 (V8t2)	1.560	0.207	7.548	0.000	1.560	0.505
PR_B.3 (V9t1)	-1.045	0.169	-6.184	0.000	-1.045	-0.633
PR_B.3 (V9t2)	0.783	0.138	5.674	0.000	0.783	0.474
PsR.3 1 (V9t1)	-1.045	0.169	-6.184	0.000	-1.045	-0.532
PsR.3 2 (V9t2)	0.783	0.138	5.674	0.000	0.783	0.399
GAP_B.3 (V101)	-1.379	0.226	-6.094	0.000	-1.379	-0.695

GAP_B.3 (V10T)	0.248	0.196	1.267	0.205	0.248	0.125
GAP.3 1 (V101)	-1.379	0.226	-6.094	0.000	-1.379	-0.527
GAP.3 2 (V102)	1.459	0.365	3.992	0.000	1.459	0.557
FAL_B.3 (V111)	-1.389	0.180	-7.698	0.000	-1.389	-0.687
FAL_B.3 (V112)	0.898	0.148	6.077	0.000	0.898	0.444
FAL.3 1 (V111)	-1.389	0.180	-7.698	0.000	-1.389	-0.562
FAL.3 2 (V112)	0.898	0.148	6.077	0.000	0.898	0.363
F_B.3 1 (V121)	-1.051	0.130	-8.069	0.000	-1.051	-0.689
F_B.3 2 (V122)	0.635	0.155	4.098	0.000	0.635	0.416
Fgh.3 1 (V121)	-1.051	0.130	-8.069	0.000	-1.051	-0.588
Fgh.3 2 (V122)	0.635	0.155	4.098	0.000	0.635	0.355
FH_B.3 (V131)	-1.500	0.164	-9.160	0.000	-1.500	-0.904
FH_B.3 (V132)	0.673	0.156	4.309	0.000	0.673	0.406
FlH.3 1 (V131)	-1.500	0.164	-9.160	0.000	-1.500	-0.759
FlH.3 2 (V132)	0.673	0.156	4.309	0.000	0.673	0.341
RW_B.3 (V141)	-1.833	0.169	-10.850	0.000	-1.833	-1.020
RW_B.3 (V142)	0.483	0.144	3.358	0.001	0.483	0.268
RgW.3 1 (V141)	-1.833	0.169	-10.850	0.000	-1.833	-0.846
RgW.3 2 (V142)	0.483	0.144	3.358	0.001	0.483	0.223

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	3.626	1.147	3.161	0.002	1.000	1.000
HSP.post	3.300	1.046	3.154	0.002	1.000	1.000
PBA.rpre	3.725	1.230	3.027	0.002	1.000	1.000
PBA.post	6.163	2.336	2.638	0.008	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.216
.Commnct_Bfr.3n	1.000				1.000	0.488
.CnflctMngm_B.3	1.000				1.000	0.370
.RghtPrtnr_Bf.3	1.000				1.000	0.337
.LrnPrtnr_Bfr.3	1.000				1.000	0.105
.PcRltnshp_Bf.3	1.000				1.000	0.147
.WrnngSgns_Bf.3	1.000				1.000	0.281
.LrndGrwngU_B.3	1.000				1.000	0.212
.PstRltnshp_B.3	1.000				1.000	0.367
.GtAlngPrnt_B.3	1.000				1.000	0.254
.FrndshpsAL_B.3	1.000				1.000	0.245
.Fights_Befr.3n	1.000				1.000	0.430
.FlngsHrt_Bfr.3	1.000				1.000	0.363
.RghtndWrng_B.3	1.000				1.000	0.309
.Healthy_Rel.3n	1.000				1.000	0.233
.Communicate.3n	0.166	0.071	2.337	0.019	0.166	0.148
.CnflctMngmnt.3	1.000				1.000	0.393
.RightPartnr.3n	1.000				1.000	0.358
.LearnPartnr.3n	1.000				1.000	0.115
.PaceRltnshp.3n	1.000				1.000	0.160
.WarningSgns.3n	0.033	0.102	0.324	0.746	0.033	0.014
.LrndGrwngUp.3n	3.395	1.319	2.573	0.010	3.395	0.355

.PstRltnshps.3n	1.000				1.000	0.259
.GtAlngPrnts.3n	1.984	0.810	2.449	0.014	1.984	0.290
.FrndshpsArLk.3	1.000				1.000	0.164
.Fights.3n	1.000				1.000	0.313
.FeelingsHrt.3n	1.000				1.000	0.256
.RightndWrng.3n	1.000				1.000	0.213

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.465				0.465	1.000
Commnct_Bfr.3n	0.699				0.699	1.000
CnflctMngm_B.3	0.609				0.609	1.000
RghtPrtnr_Bf.3	0.580				0.580	1.000
LrnPrtnr_Bfr.3	0.324				0.324	1.000
PcRltnshp_Bf.3	0.384				0.384	1.000
WrngSgns_Bf.3	0.530				0.530	1.000
Healthy_Rel.3n	0.482				0.482	1.000
Communicate.3n	0.945				0.945	1.000
CnflctMngmnt.3	0.627				0.627	1.000
RightPartnr.3n	0.598				0.598	1.000
LearnPartnr.3n	0.338				0.338	1.000
PaceRltnshp.3n	0.400				0.400	1.000
WarningSgns.3n	0.651				0.651	1.000
LrndGrwngU_B.3	0.460				0.460	1.000
PstRltnshp_B.3	0.606				0.606	1.000
GtAlngPrnt_B.3	0.504				0.504	1.000
FrndshpsAL_B.3	0.495				0.495	1.000
Fights_Befr.3n	0.656				0.656	1.000
FlngsHrt_Bfr.3	0.603				0.603	1.000
RghtndWrng_B.3	0.556				0.556	1.000
LrndGrwngUp.3n	0.323				0.323	1.000
PstRltnshps.3n	0.509				0.509	1.000
GtAlngPrnts.3n	0.382				0.382	1.000
FrndshpsArLk.3	0.405				0.405	1.000
Fights.3n	0.560				0.560	1.000
FeelingsHrt.3n	0.506				0.506	1.000
RightndWrng.3n	0.462				0.462	1.000

6.5.16 Modification Indices

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Healthy_Rel_Before.3n Healthy_Rel.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: Communicate_Before.3n Communicate.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: PastRelationships_Before.3n PastRelationships.3n

Warning in lav_start_check_cov(lavpartable = lavpartable, start = START): lavaan WARNING: start variables involved are: FriendshipsAreLike_Before.3n FriendshipsAreLike.3n

	lhs op	rhs	mi	epc	sepc.lv
1	HSP.post =~	FriendshipsAreLike.3n	22.66972	-0.4190501	-0.7612139
2	PBA.rpre =~	PastRelationships.3n	15.60609	-0.2079748	-0.4014019
3	HSP.rpre =~	PastRelationships.3n	15.42121	-0.2069952	-0.3941735

	sepc.all	sepc.nox
1	-0.3080595	-0.3080595
2	-0.2043722	-0.2043722
3	-0.2006919	-0.2006919

6.5.17 Model Comparison

```
lavaan::anova(Fit.Rcomb.model.c2.thresh2, Fit.Rcomb.model.c2.unique2)
```

Scaled Chi Square Difference Test (method = "satorra.2000")

	Df	AIC	BIC	Chisq	Chisq diff	Df diff
Fit.Rcomb.model.c2.thresh2	344			300.25		
Fit.Rcomb.model.c2.unique2	361			322.34	28.676	17

Pr(>Chisq)

Fit.Rcomb.model.c2.thresh2

Fit.Rcomb.model.c2.unique2 0.03763 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

6.6 Saving Factor Scores

6.6.1 Final Model

lavaan (0.6-1) converged normally after 147 iterations

Number of observations	111		
Estimator	DWLS	Robust	
Model Fit Test Statistic	322.337	429.806	
Degrees of freedom	361	361	
P-value (Chi-square)	0.929	0.007	
Scaling correction factor		1.669	
Shift parameter		236.667	
for simple second-order correction (Mplus variant)			

Model test baseline model:

Minimum Function Test Statistic	18602.907	4580.137
Degrees of freedom	378	378
P-value	0.000	0.000

User model versus baseline model:

Comparative Fit Index (CFI)	1.000	0.984
Tucker-Lewis Index (TLI)	1.002	0.983
Robust Comparative Fit Index (CFI)		NA
Robust Tucker-Lewis Index (TLI)		NA

Root Mean Square Error of Approximation:

RMSEA	0.000	0.042	
90 Percent Confidence Interval	0.000 0.011	0.023	0.056
P-value RMSEA <= 0.05	1.000	0.818	
Robust RMSEA		NA	
90 Percent Confidence Interval		NA	NA

Standardized Root Mean Square Residual:

SRMR	0.090	0.090
------	-------	-------

Parameter Estimates:

Information	Expected
Information saturated (h1) model	Unstructured

Standard Errors

Robust.sem

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre =~						
H_R_B.	1.000				1.904	0.885
Cm_B.3 (HSPL2)	0.538	0.111	4.837	0.000	1.024	0.715
CM_B.3 (HSPL3)	0.685	0.109	6.301	0.000	1.304	0.794
RP_B.3 (HSPL4)	0.737	0.119	6.190	0.000	1.404	0.815
LP_B.3 (HSPL5)	1.531	0.290	5.285	0.000	2.915	0.946
PR_B.3 (HSPL6)	1.263	0.215	5.887	0.000	2.405	0.923
WS_B.3 (HSPL7)	0.840	0.175	4.811	0.000	1.599	0.848
HSP.post =~						
Hl_R.3	1.000				1.817	0.876
Cmmn.3 (HSPL2)	0.538	0.111	4.837	0.000	0.977	0.923
CnfM.3 (HSPL3)	0.685	0.109	6.301	0.000	1.244	0.779
RghP.3 (HSPL4)	0.737	0.119	6.190	0.000	1.339	0.801
LrnP.3 (HSPL5)	1.531	0.290	5.285	0.000	2.781	0.941
PcRl.3 (HSPL6)	1.263	0.215	5.887	0.000	2.294	0.917
WrnS.3 (HSPL7)	0.840	0.175	4.811	0.000	1.525	0.993
PBA.rpre =~						
LGU_B.	1.000				1.930	0.888
PR_B.3 (PBAL2)	0.681	0.109	6.261	0.000	1.314	0.796
GAP_B. (PBAL3)	0.889	0.195	4.554	0.000	1.715	0.864
FAL_B. (PBAL4)	0.910	0.155	5.854	0.000	1.757	0.869
Fg_B.3 (PBAL5)	0.596	0.112	5.320	0.000	1.151	0.755
FH_B.3 (PBAL6)	0.686	0.127	5.397	0.000	1.324	0.798
RW_B.3 (PBAL7)	0.774	0.143	5.420	0.000	1.494	0.831
PBA.post =~						
LrGU.3	1.000				2.483	0.803
PstR.3 (PBAL2)	0.681	0.109	6.261	0.000	1.690	0.861
GtAP.3 (PBAL3)	0.889	0.195	4.554	0.000	2.206	0.843
FrAL.3 (PBAL4)	0.910	0.155	5.854	0.000	2.260	0.914
Fght.3 (PBAL5)	0.596	0.112	5.320	0.000	1.481	0.829
FlnH.3 (PBAL6)	0.686	0.127	5.397	0.000	1.703	0.862
RghW.3 (PBAL7)	0.774	0.143	5.420	0.000	1.922	0.887

Covariances:

	Estimate	Std.Err	z-value	P(> z)
HSP.rpre ~~				
HSP.post	0.131	0.371	0.353	0.724
PBA.rpre	2.247	0.638	3.520	0.000
PBA.post	-0.184	0.490	-0.375	0.707
HSP.post ~~				
PBA.rpre	0.714	0.438	1.631	0.103
PBA.post	3.519	1.117	3.150	0.002
PBA.rpre ~~				
PBA.post	1.561	0.757	2.063	0.039

.Healthy_Rel_Before.3n ~~				
.Healthy_Rel.3n	1.022	0.450	2.268	0.023
.Communicate_Before.3n ~~				
.Communicate.3n	0.414	0.155	2.668	0.008
.ConflictManagement_Before.3n ~~				
.CnflctMngmnt.3	0.556	0.239	2.328	0.020
.RightPartner_Before.3n ~~				
.RightPartnr.3n	0.043	0.336	0.128	0.898
.LearnPartner_Before.3n ~~				
.LearnPartnr.3n	0.958	0.858	1.117	0.264
.PaceRelationship_Before.3n ~~				
.PaceRltnshp.3n	0.858	0.643	1.334	0.182
.WarningSigns_Before.3n ~~				
.WarningSgns.3n	0.170	0.266	0.640	0.522
.LearnedGrowingUp_Before.3n ~~				
.LrndGrwngUp.3n	0.741	0.750	0.988	0.323
.PastRelationships_Before.3n ~~				
.PstRltnshps.3n	1.108	0.388	2.852	0.004
.GetAlongParents_Before.3n ~~				
.GtAlngPrnts.3n	0.911	0.542	1.682	0.093
.FriendshipsAreLike_Before.3n ~~				
.FrndshpsArLk.3	1.556	0.436	3.567	0.000
.Fights_Before.3n ~~				
.Fights.3n	0.596	0.242	2.459	0.014
.FeelingsHurt_Before.3n ~~				
.FeelingsHrt.3n	0.566	0.379	1.494	0.135
.RightandWrong_Before.3n ~~				
.RightndWrng.3n	0.822	0.391	2.099	0.036
.ConflictManagement.3n ~~				
.RightPartnr.3n	0.476	0.132	3.605	0.000
Std.lv Std.all				
0.038	0.038			
0.611	0.611			
-0.039	-0.039			
0.204	0.204			
0.780	0.780			
0.326	0.326			
1.022	1.022			
0.414	1.016			
0.556	0.556			
0.043	0.043			

0.958	0.958
0.858	0.858
0.170	0.939
0.741	0.402
1.108	1.108
0.911	0.647
1.556	1.556
0.596	0.596
0.566	0.566
0.822	0.822
0.476	0.476

Intercepts:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	0.000				0.000	0.000
HSP.post	4.239	0.617	6.866	0.000	2.334	2.334
PBA.rpre	-1.475	0.298	-4.942	0.000	-0.764	-0.764
PBA.post	2.346	0.453	5.176	0.000	0.945	0.945
.Hlthy_Rl_Bfr.3	0.000				0.000	0.000
.Commnct_Bfr.3n	0.000				0.000	0.000
.CnflctMngm_B.3	0.000				0.000	0.000
.Healthy_Rel.3n	0.000				0.000	0.000
.Communicate.3n	0.000				0.000	0.000
.CnflctMngmnt.3	0.000				0.000	0.000
.RghtPrtnr_Bf.3	0.000				0.000	0.000
.LrnPrtnr_Bfr.3	0.000				0.000	0.000
.PcRltnshp_Bf.3	0.000				0.000	0.000
.WrnngSgns_Bf.3	0.000				0.000	0.000
.RightPartnr.3n	0.000				0.000	0.000
.LearnPartnr.3n	0.000				0.000	0.000
.PaceRltnshp.3n	0.000				0.000	0.000
.WarningSgns.3n	0.000				0.000	0.000
.LrndGrwngU_B.3	0.000				0.000	0.000
.PstRltnshp_B.3	0.000				0.000	0.000
.GtAlngPrnt_B.3	0.000				0.000	0.000
.FrndshpsAL_B.3	0.000				0.000	0.000
.LrndGrwngUp.3n	0.000				0.000	0.000

.PstRltnshps.3n	0.000	0.000	0.000
.GtAlngPrnts.3n	0.000	0.000	0.000
.FrndshpsArLk.3	0.000	0.000	0.000
.Fights_Befr.3n	0.000	0.000	0.000
.FlngsHrt_Bfr.3	0.000	0.000	0.000
.RghtndWrng_B.3	0.000	0.000	0.000
.Fights.3n	0.000	0.000	0.000
.FeelingsHrt.3n	0.000	0.000	0.000
.RightndWrng.3n	0.000	0.000	0.000

Thresholds:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
H_R_B.3 (V1t1)	0.580	0.271	2.140	0.032	0.580	0.269
H_R_B.3 (V1t2)	3.975	0.567	7.009	0.000	3.975	1.848
H_R.3 1 (V1t1)	0.580	0.271	2.140	0.032	0.580	0.279
H_R.3 2 (V1t2)	3.975	0.567	7.009	0.000	3.975	1.917
C_B.3 1 (V2t1)	0.380	0.150	2.533	0.011	0.380	0.265
C_B.3 2 (V2t2)	2.273	0.323	7.043	0.000	2.273	1.588
Cmm.3 1 (V2t1)	0.380	0.150	2.533	0.011	0.380	0.359
Cmm.3 2 (V2t2)	2.273	0.323	7.043	0.000	2.273	2.148
CM_B.3 (V3t1)	0.694	0.216	3.215	0.001	0.694	0.422
CM_B.3 (V3t2)	3.082	0.310	9.945	0.000	3.082	1.875
CnM.3 1 (V3t1)	0.694	0.216	3.215	0.001	0.694	0.435
CnM.3 2 (V3t2)	3.082	0.310	9.945	0.000	3.082	1.931
RP_B.3 (V4t1)	1.077	0.257	4.191	0.000	1.077	0.625
RP_B.3 (V4t2)	3.262	0.385	8.465	0.000	3.262	1.893
RgP.3 1 (V4t1)	1.077	0.257	4.191	0.000	1.077	0.644
RgP.3 2 (V4t2)	3.262	0.385	8.465	0.000	3.262	1.952
LP_B.3 (V5t1)	1.347	0.414	3.256	0.001	1.347	0.437
LP_B.3 (V5t2)	5.701	0.959	5.946	0.000	5.701	1.850
LrP.3 1 (V5t1)	1.347	0.414	3.256	0.001	1.347	0.456
LrP.3 2 (V5t2)	5.701	0.959	5.946	0.000	5.701	1.929
PR_B.3 (V6t1)	1.478	0.398	3.714	0.000	1.478	0.568
PR_B.3 (V6t2)	4.944	0.752	6.578	0.000	4.944	1.898
PcR.3 1 (V6t1)	1.478	0.398	3.714	0.000	1.478	0.591
PcR.3 2 (V6t2)	4.944	0.752	6.578	0.000	4.944	1.976
WS_B.3 (V7t1)	0.621	0.225	2.761	0.006	0.621	0.330
WS_B.3 (V7t2)	3.252	0.603	5.390	0.000	3.252	1.724
WrS.3 1 (V7t1)	0.621	0.225	2.761	0.006	0.621	0.405
WrS.3 2 (V7t2)	3.252	0.603	5.390	0.000	3.252	2.117
LGU_B.3 (V8t1)	-1.443	0.229	-6.296	0.000	-1.443	-0.664
LGU_B.3 (V8t2)	1.560	0.207	7.548	0.000	1.560	0.718
LGU.3 1 (V8t1)	-1.443	0.229	-6.296	0.000	-1.443	-0.467
LGU.3 2 (V8t2)	1.560	0.207	7.548	0.000	1.560	0.505
PR_B.3 (V9t1)	-1.045	0.169	-6.184	0.000	-1.045	-0.633
PR_B.3 (V9t2)	0.783	0.138	5.674	0.000	0.783	0.474
PsR.3 1 (V9t1)	-1.045	0.169	-6.184	0.000	-1.045	-0.532
PsR.3 2 (V9t2)	0.783	0.138	5.674	0.000	0.783	0.399

GAP_B.3 (V101)	-1.379	0.226	-6.094	0.000	-1.379	-0.695
GAP_B.3 (V10T)	0.248	0.196	1.267	0.205	0.248	0.125
GAP.3 1 (V101)	-1.379	0.226	-6.094	0.000	-1.379	-0.527
GAP.3 2 (V102)	1.459	0.365	3.992	0.000	1.459	0.557
FAL_B.3 (V111)	-1.389	0.180	-7.698	0.000	-1.389	-0.687
FAL_B.3 (V112)	0.898	0.148	6.077	0.000	0.898	0.444
FAL.3 1 (V111)	-1.389	0.180	-7.698	0.000	-1.389	-0.562
FAL.3 2 (V112)	0.898	0.148	6.077	0.000	0.898	0.363
F_B.3 1 (V121)	-1.051	0.130	-8.069	0.000	-1.051	-0.689
F_B.3 2 (V122)	0.635	0.155	4.098	0.000	0.635	0.416
Fgh.3 1 (V121)	-1.051	0.130	-8.069	0.000	-1.051	-0.588
Fgh.3 2 (V122)	0.635	0.155	4.098	0.000	0.635	0.355
FH_B.3 (V131)	-1.500	0.164	-9.160	0.000	-1.500	-0.904
FH_B.3 (V132)	0.673	0.156	4.309	0.000	0.673	0.406
FlH.3 1 (V131)	-1.500	0.164	-9.160	0.000	-1.500	-0.759
FlH.3 2 (V132)	0.673	0.156	4.309	0.000	0.673	0.341
RW_B.3 (V141)	-1.833	0.169	-10.850	0.000	-1.833	-1.020
RW_B.3 (V142)	0.483	0.144	3.358	0.001	0.483	0.268
RgW.3 1 (V141)	-1.833	0.169	-10.850	0.000	-1.833	-0.846
RgW.3 2 (V142)	0.483	0.144	3.358	0.001	0.483	0.223

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
HSP.rpre	3.626	1.147	3.161	0.002	1.000	1.000
HSP.post	3.300	1.046	3.154	0.002	1.000	1.000
PBA.rpre	3.725	1.230	3.027	0.002	1.000	1.000
PBA.post	6.163	2.336	2.638	0.008	1.000	1.000
.Hlthy_Rl_Bfr.3	1.000				1.000	0.216
.Commnct_Bfr.3n	1.000				1.000	0.488
.CnflctMngm_B.3	1.000				1.000	0.370
.RghtPrtnr_Bf.3	1.000				1.000	0.337
.LrnPrtnr_Bfr.3	1.000				1.000	0.105
.PcRltnshp_Bf.3	1.000				1.000	0.147
.WrngSgns_Bf.3	1.000				1.000	0.281
.LrndGrwngU_B.3	1.000				1.000	0.212
.PstRltnshp_B.3	1.000				1.000	0.367
.GtAlngPrnt_B.3	1.000				1.000	0.254
.FrndshpsAL_B.3	1.000				1.000	0.245
.Fights_Befr.3n	1.000				1.000	0.430
.FlngsHrt_Bfr.3	1.000				1.000	0.363
.RghtndWrng_B.3	1.000				1.000	0.309
.Healthy_Rel.3n	1.000				1.000	0.233
.Communicate.3n	0.166	0.071	2.337	0.019	0.166	0.148
.CnflctMngmnt.3	1.000				1.000	0.393
.RightPartnr.3n	1.000				1.000	0.358
.LearnPartnr.3n	1.000				1.000	0.115
.PaceRltnshp.3n	1.000				1.000	0.160
.WarningSgns.3n	0.033	0.102	0.324	0.746	0.033	0.014

.LrndGrwngUp.3n	3.395	1.319	2.573	0.010	3.395	0.355
.PstRltnshps.3n	1.000				1.000	0.259
.GtAlngPrnts.3n	1.984	0.810	2.449	0.014	1.984	0.290
.FrndshpsArLk.3	1.000				1.000	0.164
.Fights.3n	1.000				1.000	0.313
.FeelingsHrt.3n	1.000				1.000	0.256
.RightndWrng.3n	1.000				1.000	0.213

Scales y*:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Hlthy_Rl_Bfr.3	0.465				0.465	1.000
Commnct_Bfr.3n	0.699				0.699	1.000
CnflctMngm_B.3	0.609				0.609	1.000
RghtPrtnr_Bf.3	0.580				0.580	1.000
LrnPrtnr_Bfr.3	0.324				0.324	1.000
PcRltnshp_Bf.3	0.384				0.384	1.000
WrngSgns_Bf.3	0.530				0.530	1.000
Healthy_Rel.3n	0.482				0.482	1.000
Communicate.3n	0.945				0.945	1.000
CnflctMngmnt.3	0.627				0.627	1.000
RightPartnr.3n	0.598				0.598	1.000
LearnPartnr.3n	0.338				0.338	1.000
PaceRltnshp.3n	0.400				0.400	1.000
WarningSgns.3n	0.651				0.651	1.000
LrndGrwngU_B.3	0.460				0.460	1.000
PstRltnshp_B.3	0.606				0.606	1.000
GtAlngPrnt_B.3	0.504				0.504	1.000
FrndshpsAL_B.3	0.495				0.495	1.000
Fights_Befr.3n	0.656				0.656	1.000
FlngsHrt_Bfr.3	0.603				0.603	1.000
RghtndWrng_B.3	0.556				0.556	1.000
LrndGrwngUp.3n	0.323				0.323	1.000
PstRltnshps.3n	0.509				0.509	1.000
GtAlngPrnts.3n	0.382				0.382	1.000
FrndshpsArLk.3	0.405				0.405	1.000
Fights.3n	0.560				0.560	1.000
FeelingsHrt.3n	0.506				0.506	1.000
RightndWrng.3n	0.462				0.462	1.000

6.6.2 Generating and Saving Factor Scores

```
-----  
          Mean/Count (SD/%)  
          n = 111  
HSP.rpre  
    -0.1 (1.7)  
HSP.post  
    1.5 (2.7)  
PBA.rpre  
    -0.9 (2.1)  
PBA.post  
    0.5 (2.9)  
-----
```

N = 111

Note: pearson correlation (p-value).

```
-----  
          [1]          [2]          [3]          [4]  
[1]HSP.rpre 1.00  
[2]PBA.rpre 0.758 (<.001) 1.00  
[3]HSP.post 0.065 (0.499) 0.243 (0.01) 1.00  
[4]PBA.post 0.056 (0.562) 0.396 (<.001) 0.92 (<.001) 1.00  
-----
```

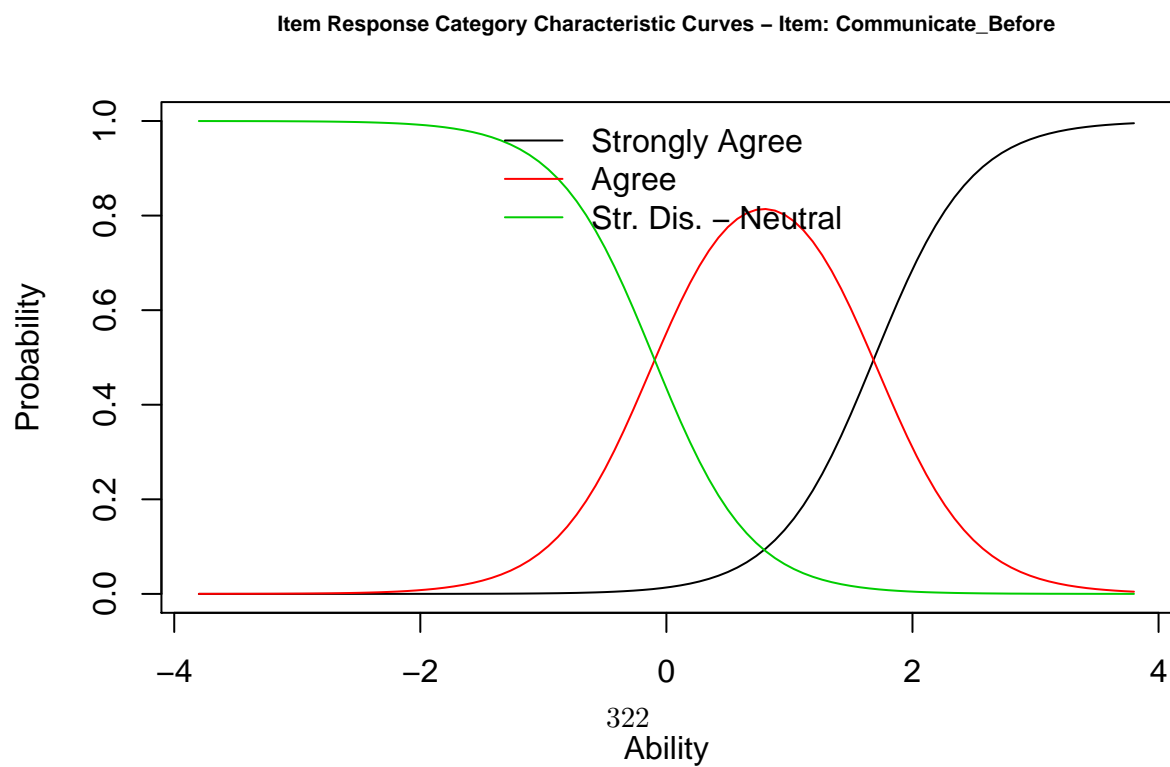
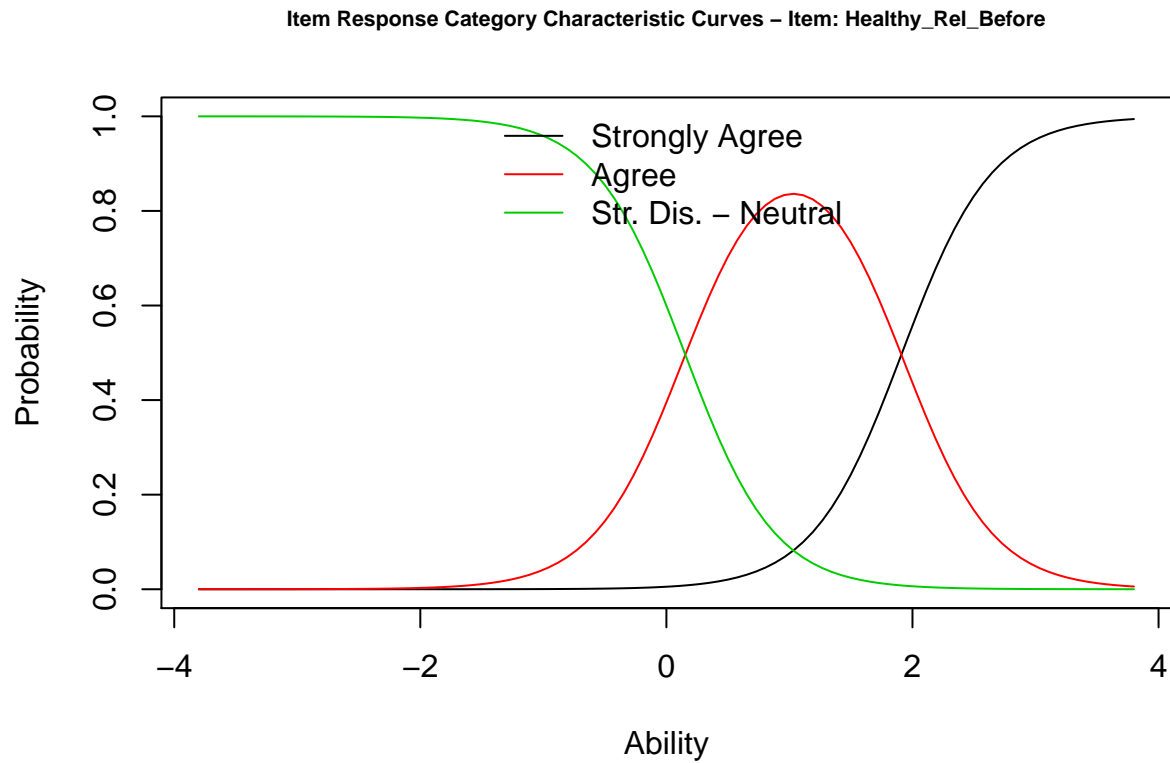
6.6.3 Long factor score data

```
PICK_clean.fscore_long <- PICK_clean %>%
  dplyr::left_join(PICK_clean.fscores, by = "ID") %>%
  dplyr::filter(complete.cases(HSP.rpre, HSP.post, PBA.rpre, PBA.post)) %>%
  dplyr::filter(in.analysis.sample3 == TRUE) %>%
  dplyr::rename(HSPrpre = HSP.rpre,
               HSPpost = HSP.post,
               PBArpre = PBA.rpre,
               PBAPost = PBA.post) %>%
  dplyr::select(ID,
               Age,
               `Age (Decades)`,
               Age_Groups,
               Ethnic_Code,
               Race_Dichotomous,
               Education_collapsed,
               Education_3cat,
               Prior_RshpEducation,
               Prior_RshpEducation_collapsed,
               FinancialWorry_cat,
               Income,
               `Income (10K)`,
               Number_Attended,
               Dosage,
               Gender,
               Divorced_Dichotomous,
               HSPrpre, HSPpost, PBArpre, PBAPost) %>%
  tidyr::gather(key = var,
               value = Score,
               HSPrpre, HSPpost, PBArpre, PBAPost) %>%
  tidyr::separate(col = var, into = c("Domain", "Time"), sep = -4) %>%
  dplyr::mutate_at(vars(ID, Domain, Time), factor) %>%
  dplyr::arrange(ID, Domain, Time) %>%
  dplyr::mutate(Time = factor(Time,
                             levels = c("rpre", "post"))) %>%
  dplyr::mutate(Age_Decades = `Age (Decades)`) %>%
  dplyr::mutate(Income_10K = `Income (10K)`)

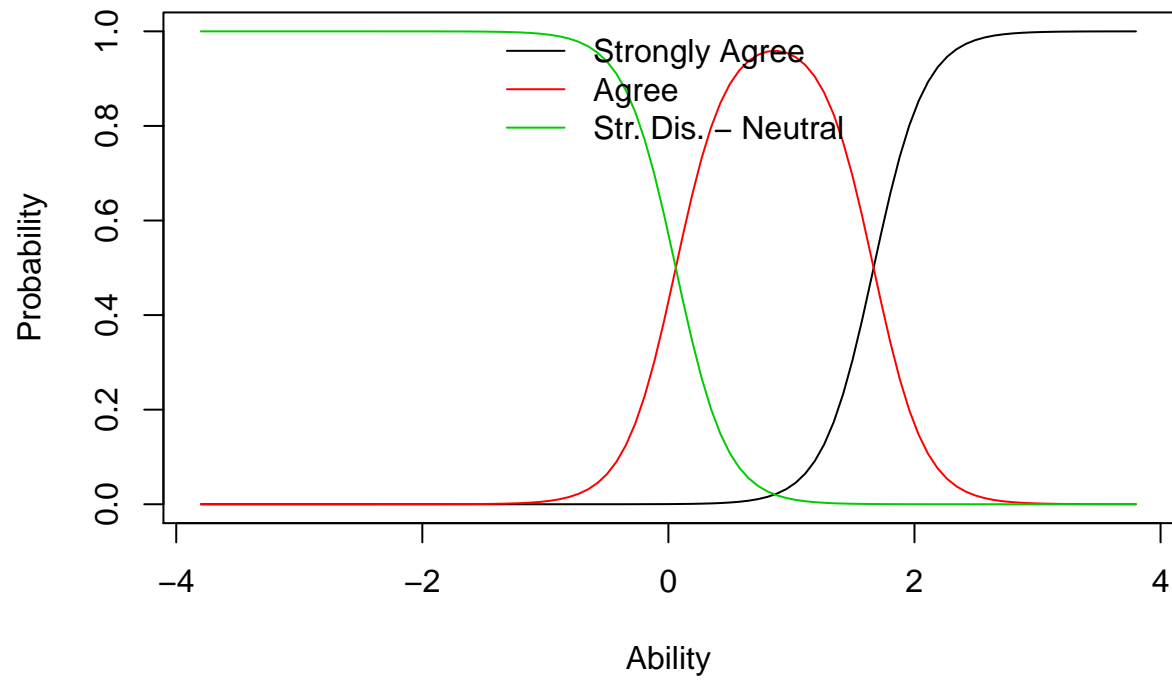
save(PICK_clean.fscore_long, file = "../Data/PICK_clean.fscore_long.Rda")
```


7 IRT Approach

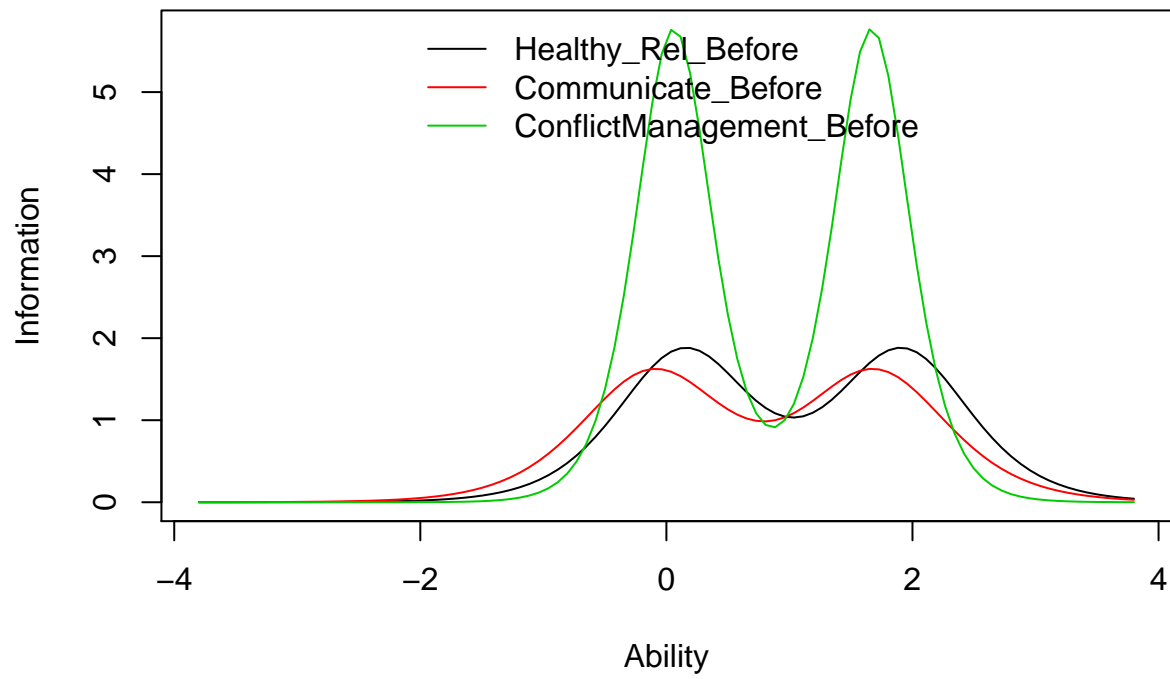
7.1 HRS Retrospective-Pre



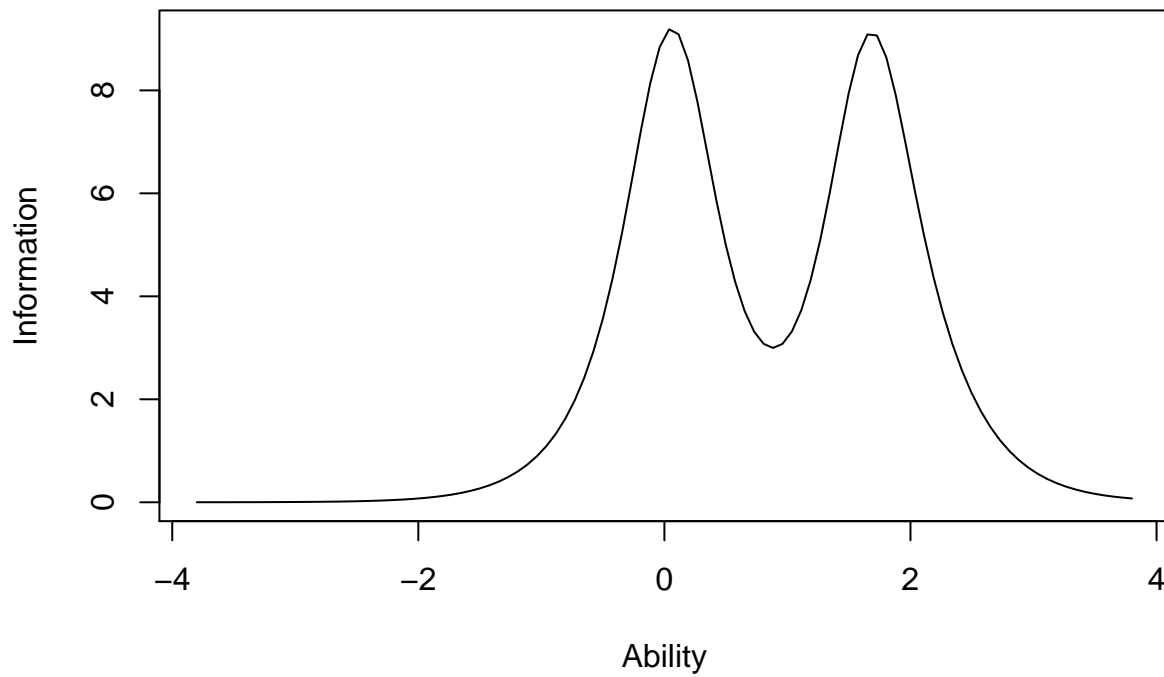
Item Response Category Characteristic Curves – Item: ConflictManagement_Before



Item Information Curves

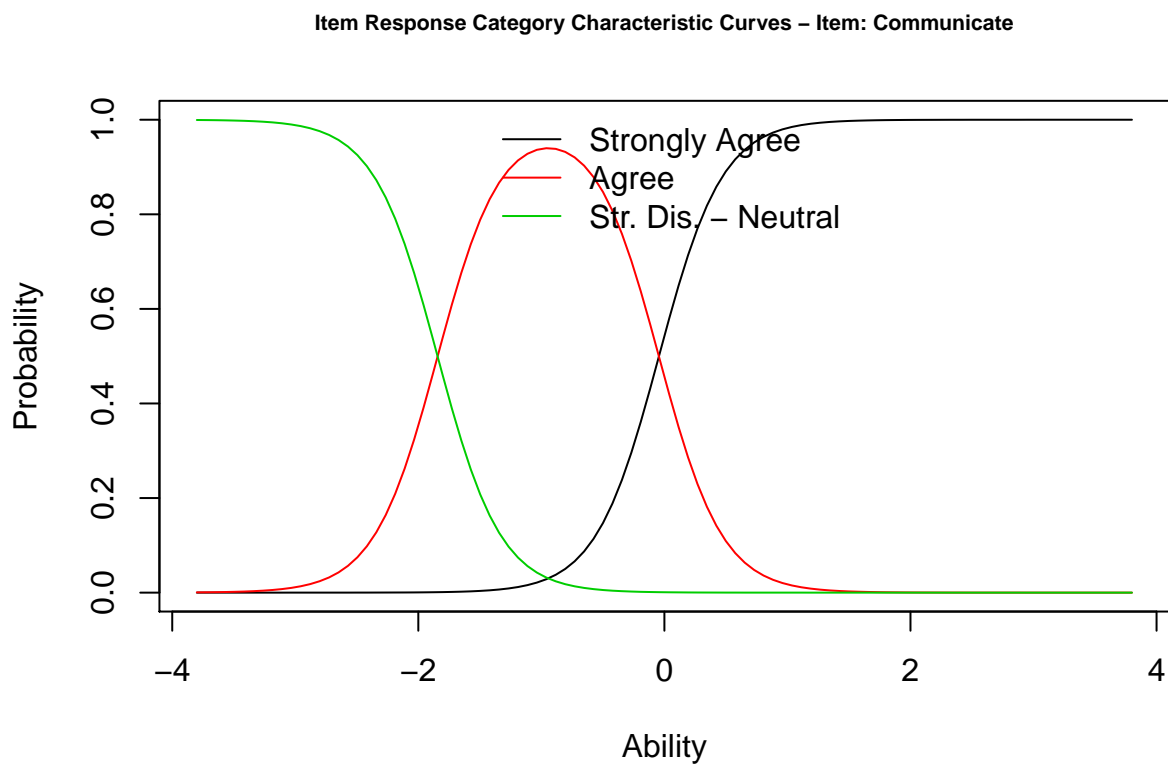
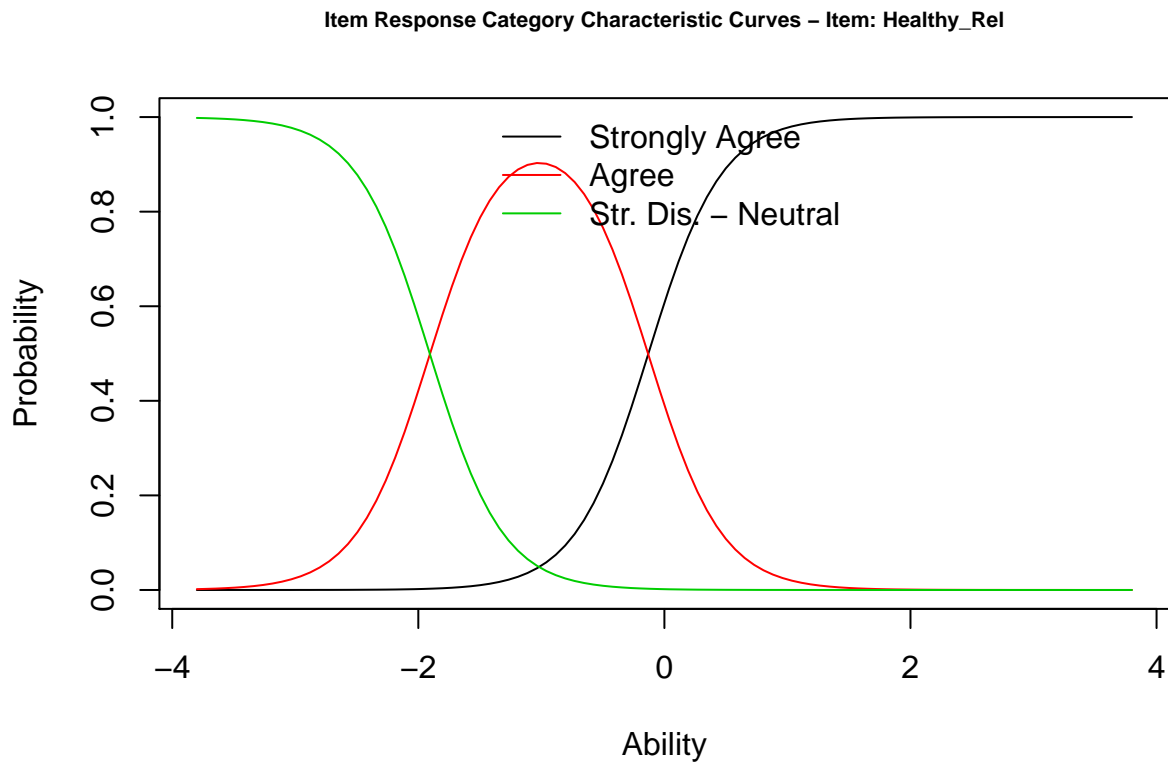


Test Information Function

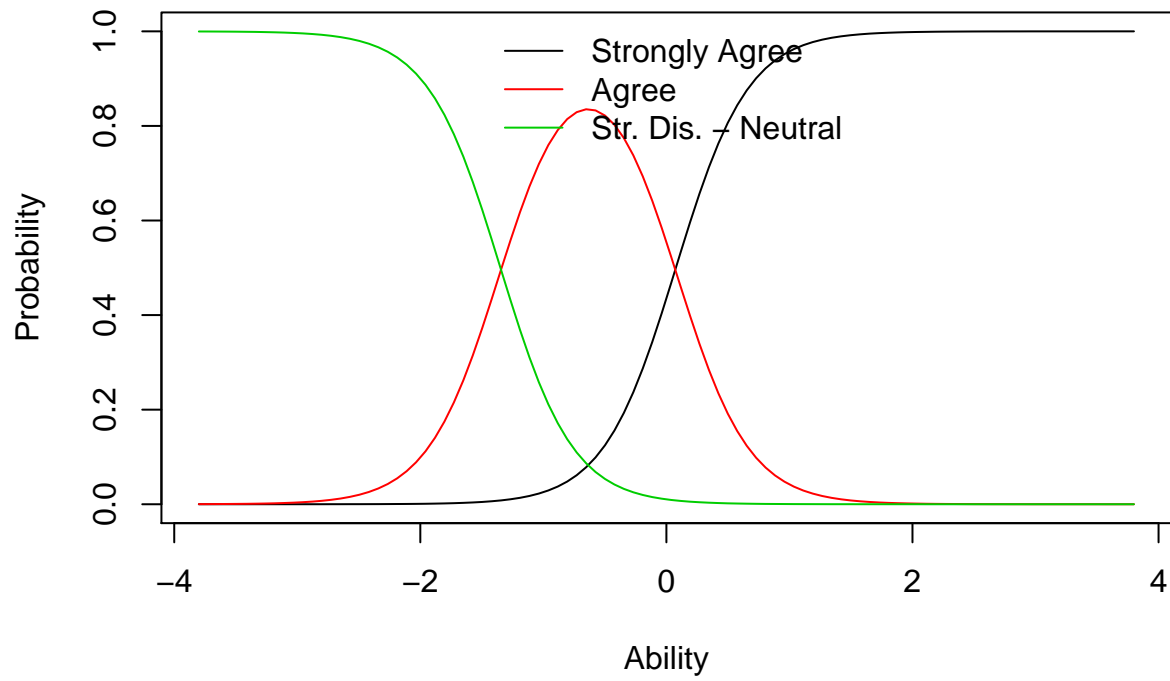


Joining, by = c("Healthy_Rel_Before", "Communicate_Before", "ConflictManagement_Before")

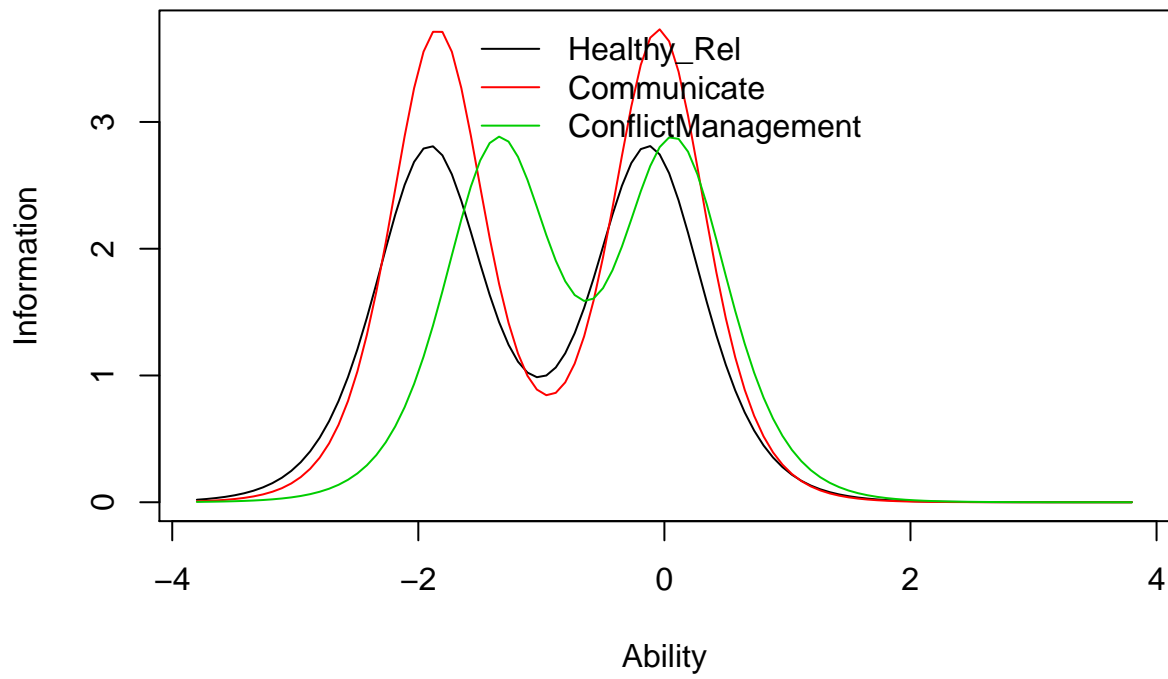
7.2 HRS Post



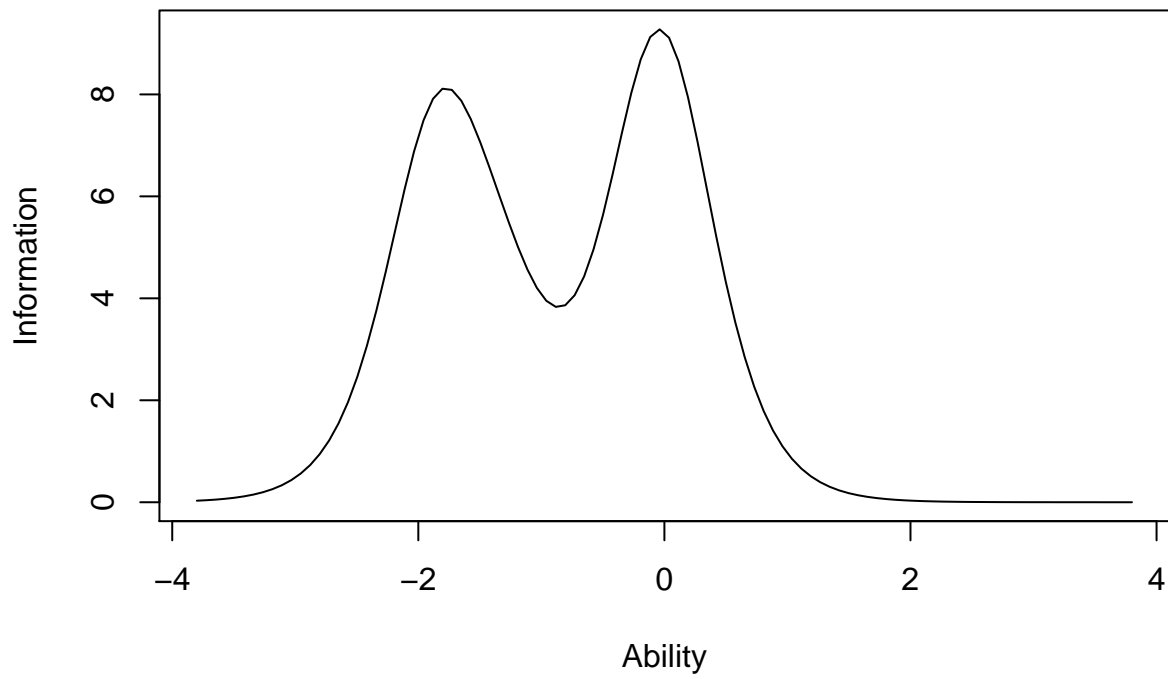
Item Response Category Characteristic Curves – Item: ConflictManagement



Item Information Curves



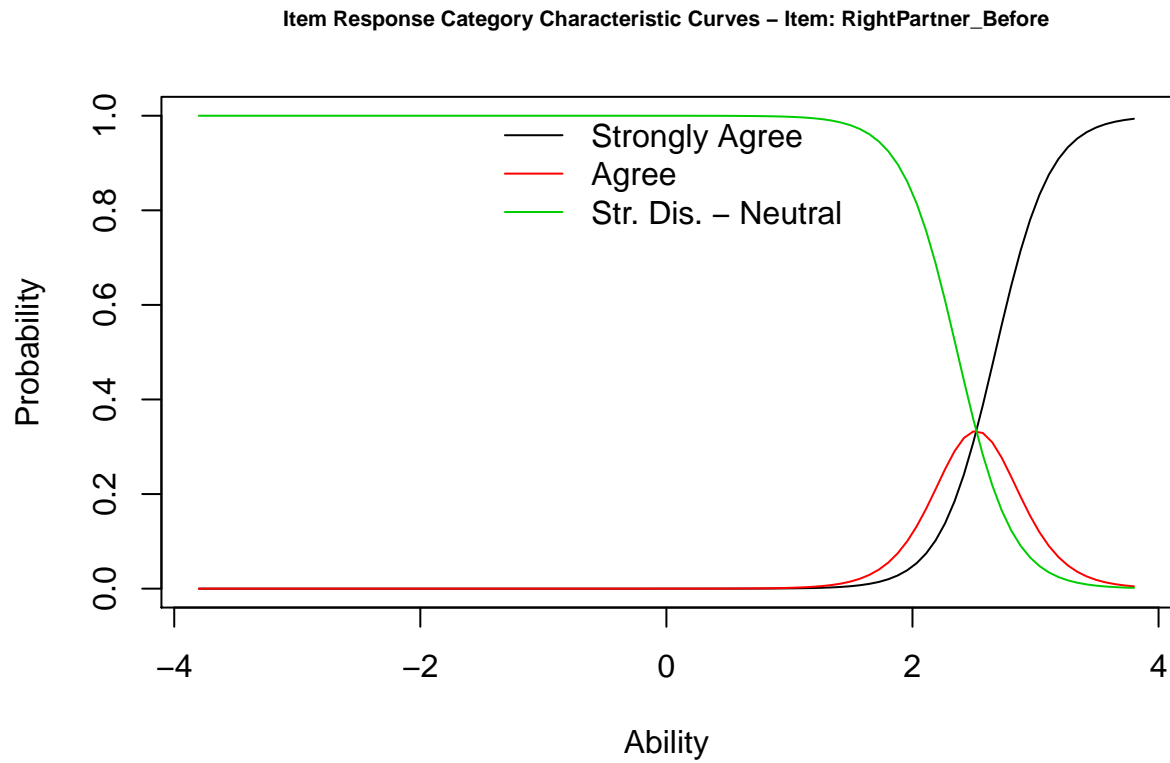
Test Information Function



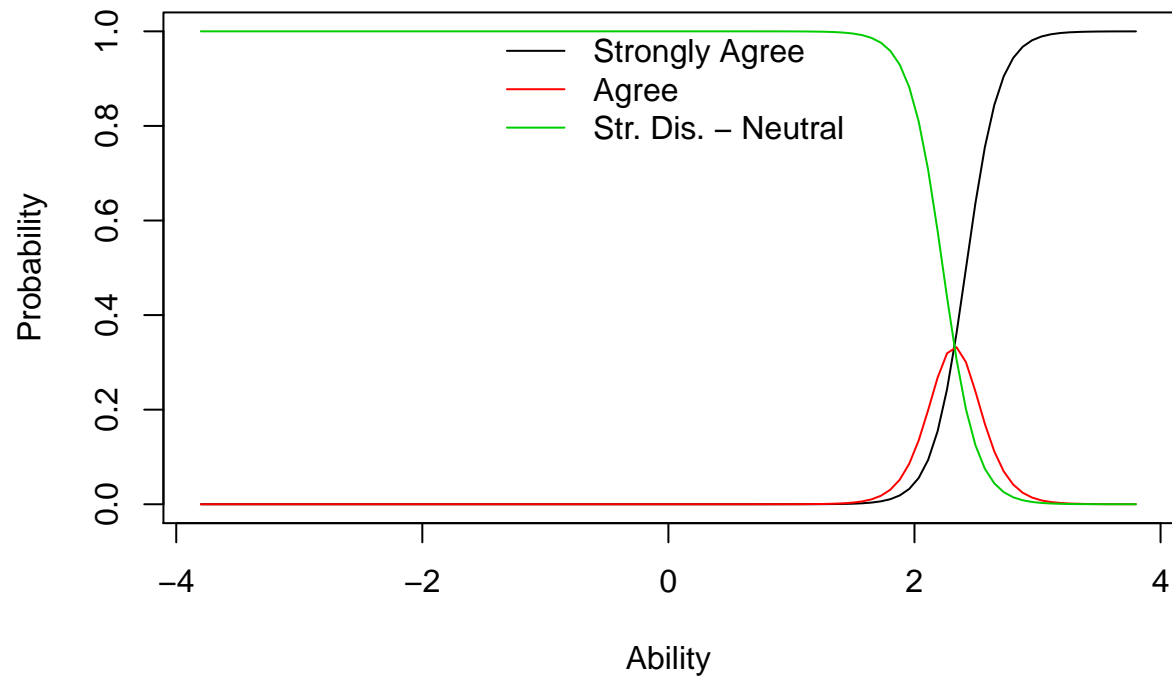
Joining, by = c("Healthy_Rel", "Communicate", "ConflictManagement")

7.3 PS Pre

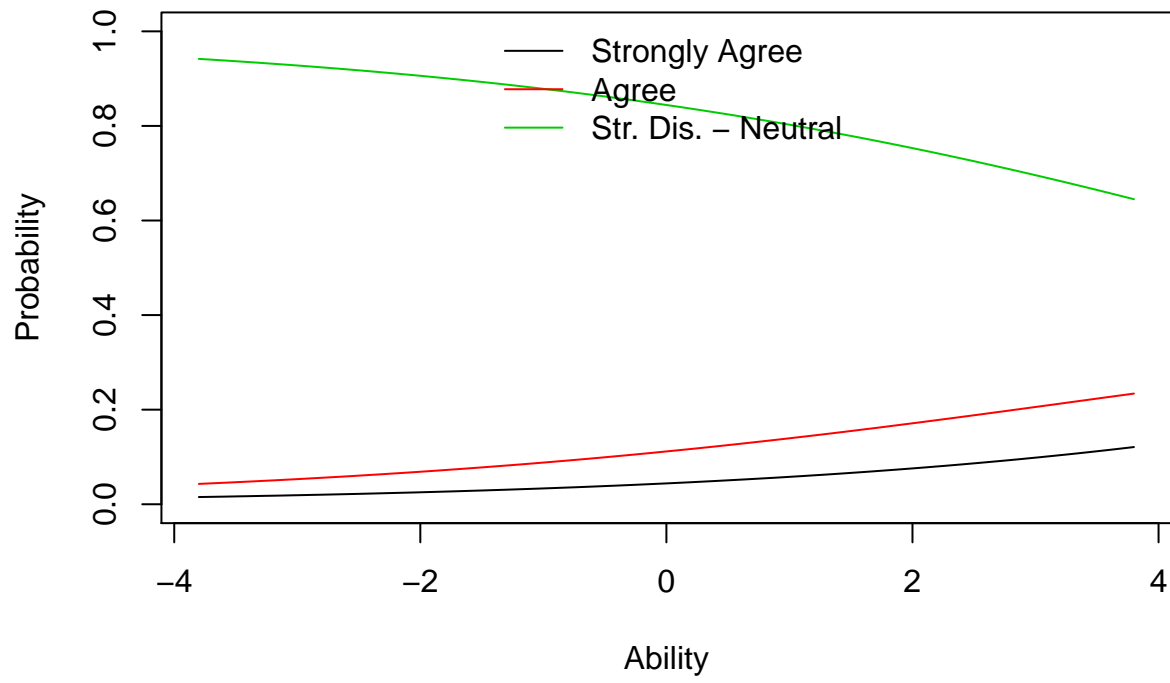
Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred



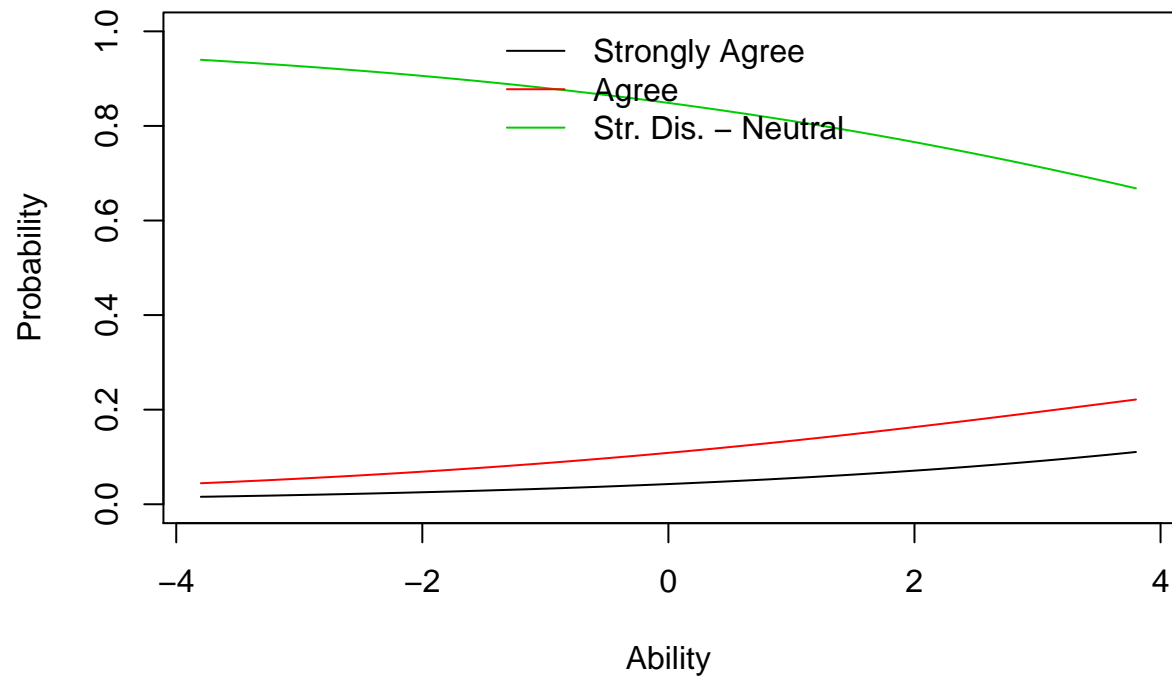
Item Response Category Characteristic Curves – Item: LearnPartner_Before



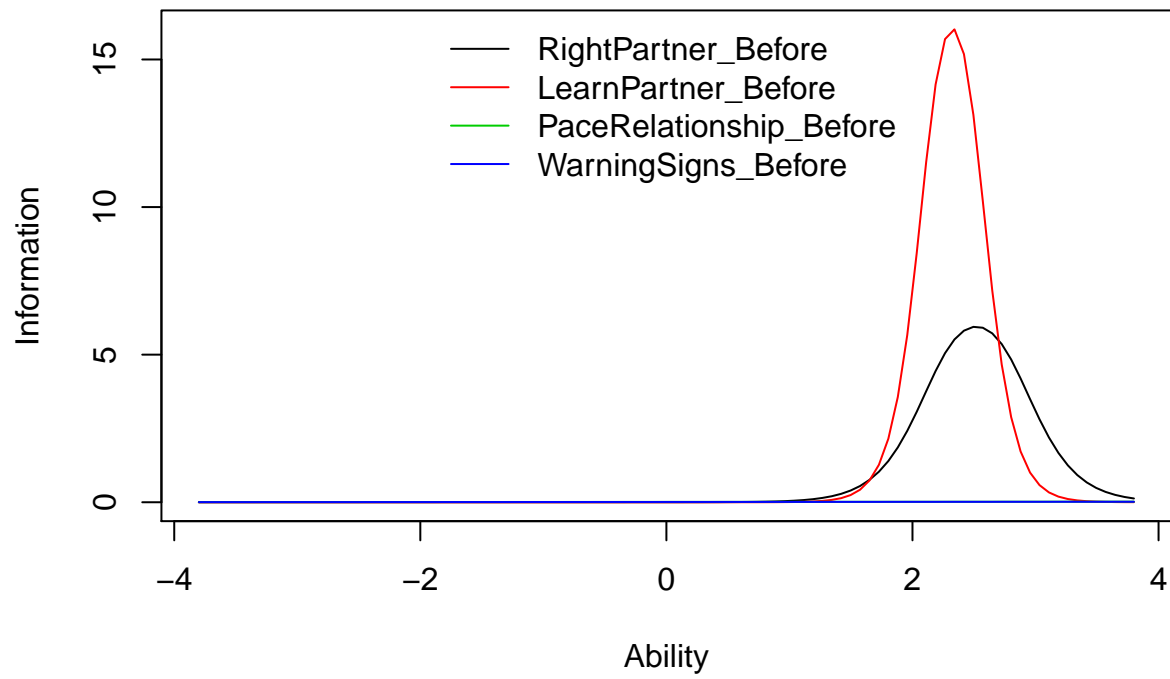
Item Response Category Characteristic Curves – Item: PaceRelationship_Before



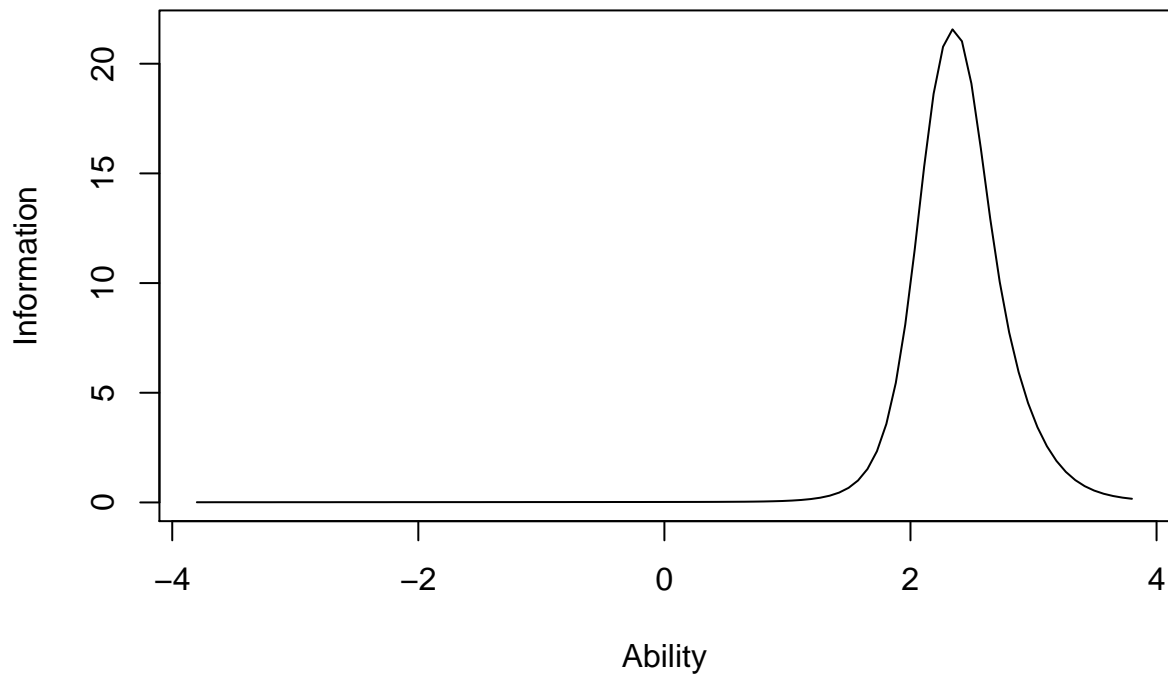
Item Response Category Characteristic Curves – Item: WarningSigns_Before



Item Information Curves



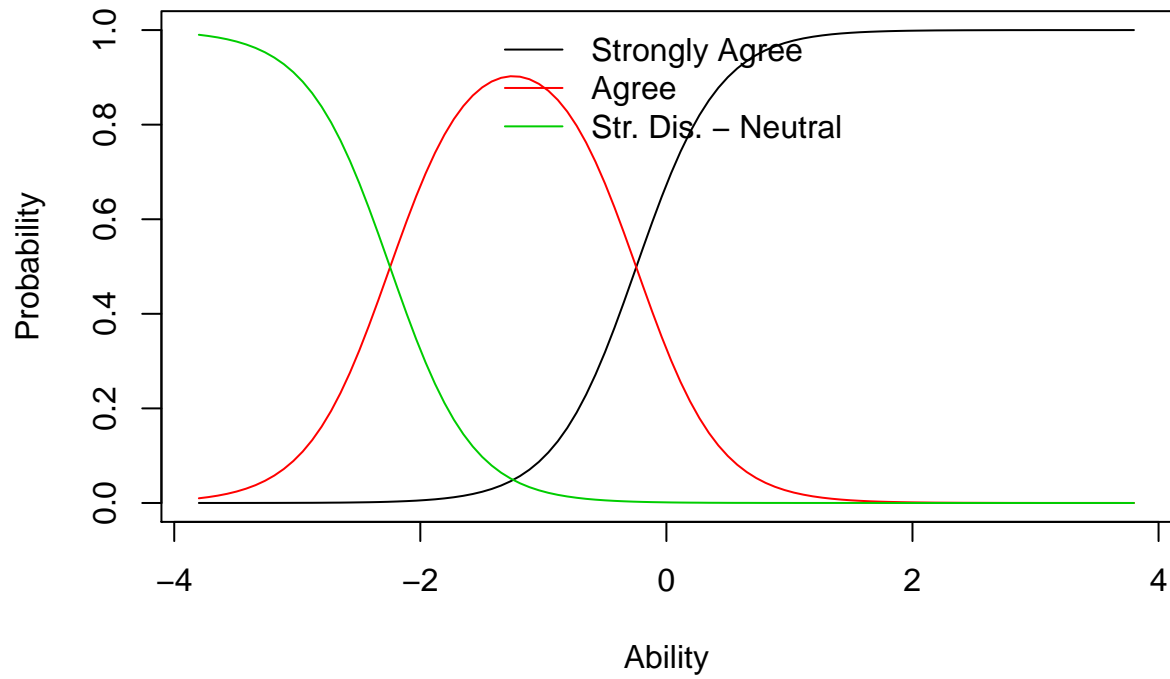
Test Information Function



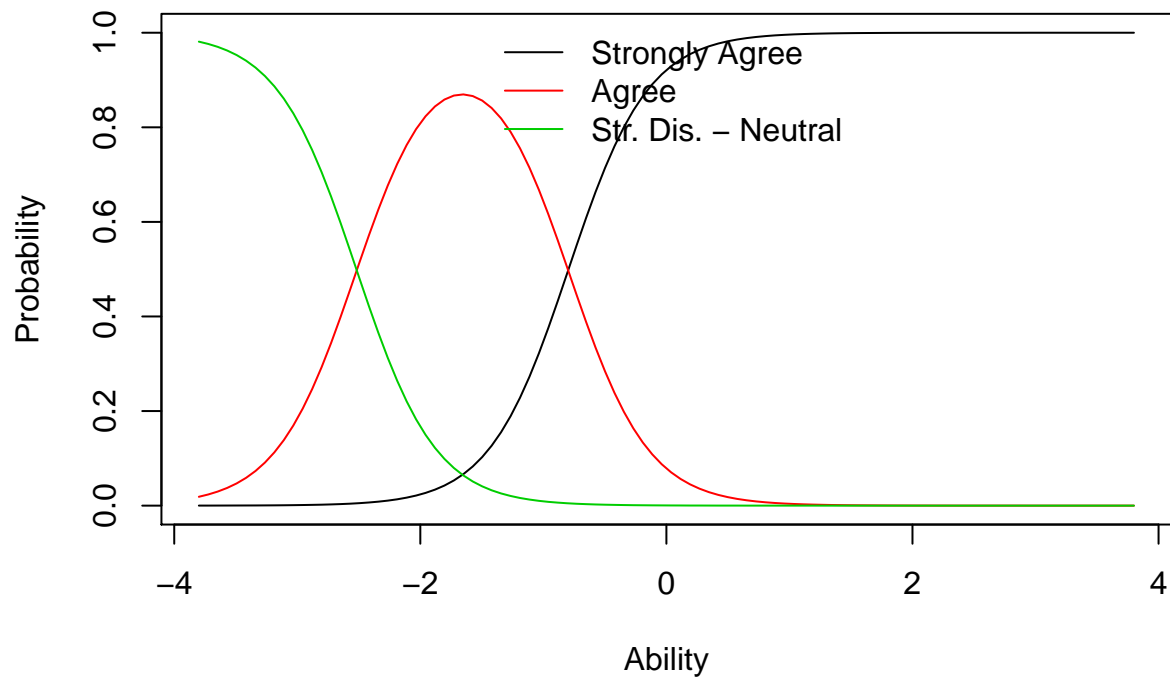
Joining, by = c("RightPartner_Before", "LearnPartner_Before", "PaceRelationship_Before", "Warn

7.4 PS Post

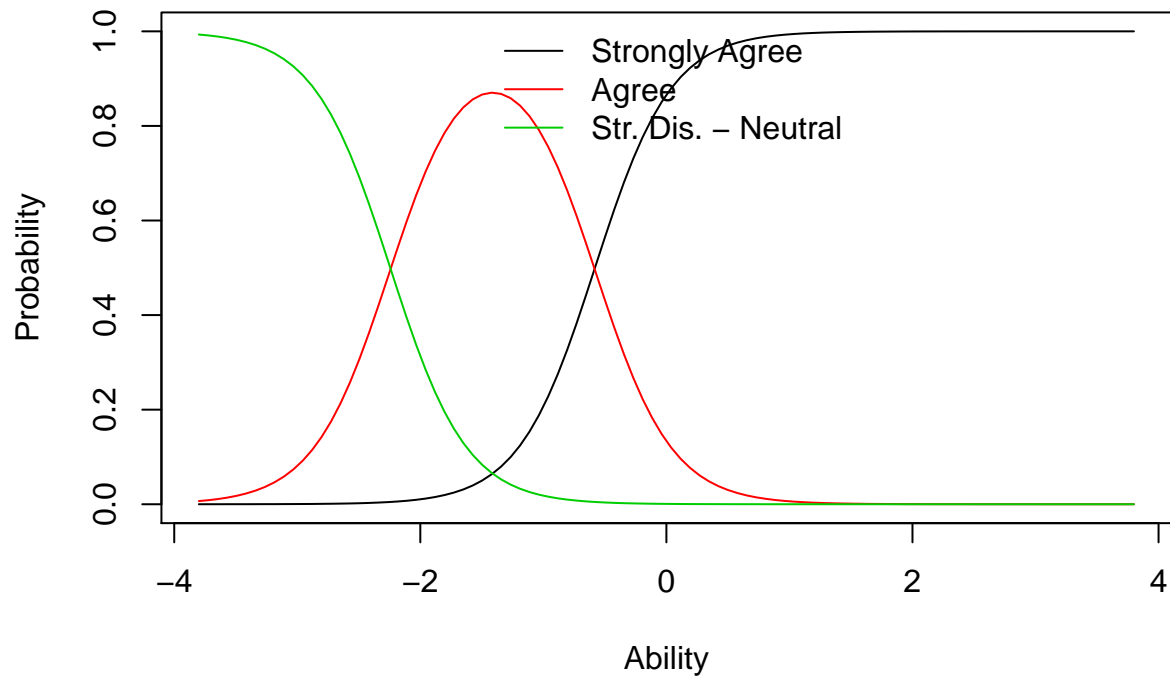
Item Response Category Characteristic Curves – Item: RightPartner



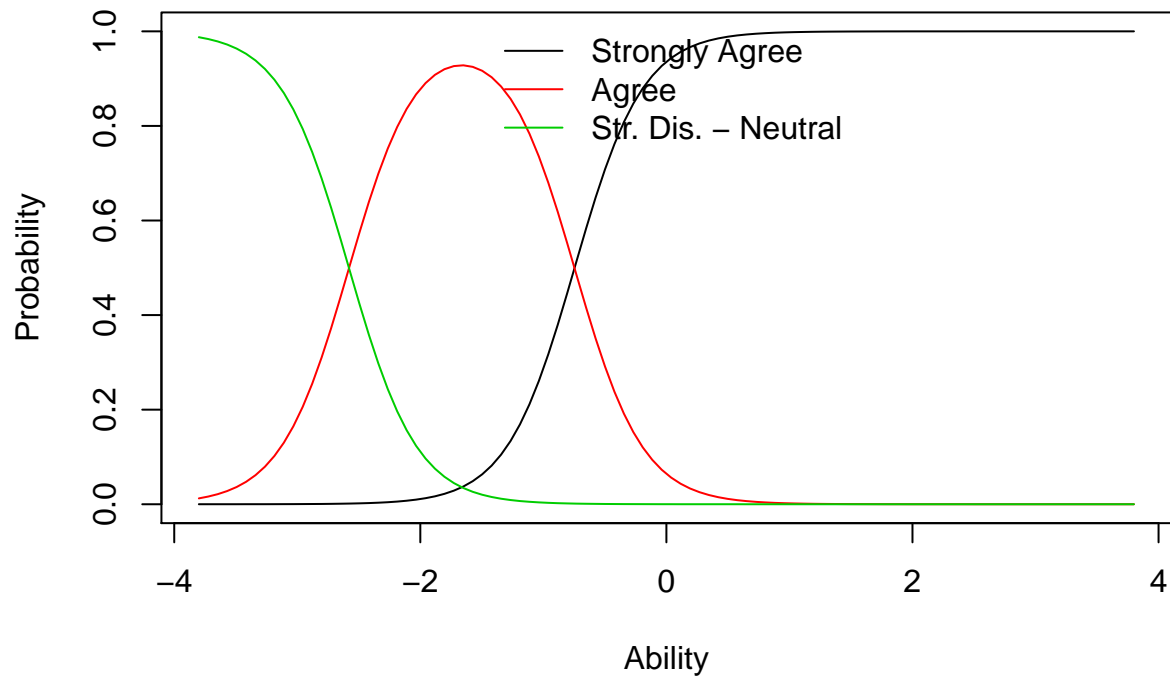
Item Response Category Characteristic Curves – Item: LearnPartner



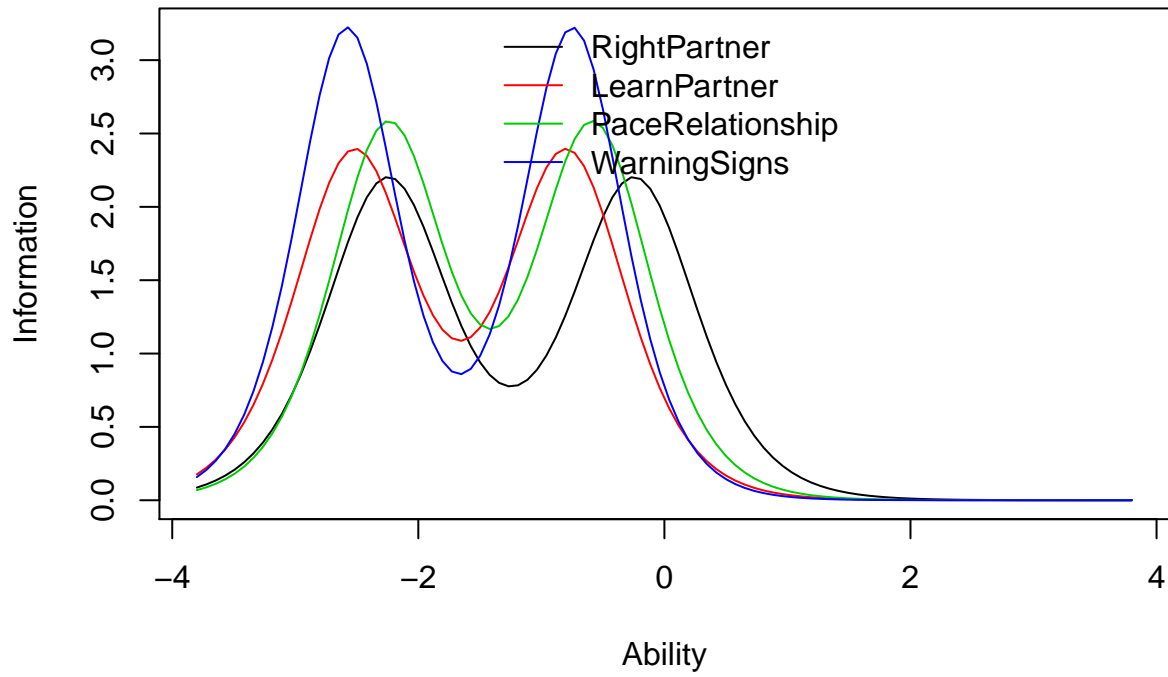
Item Response Category Characteristic Curves – Item: PaceRelationship

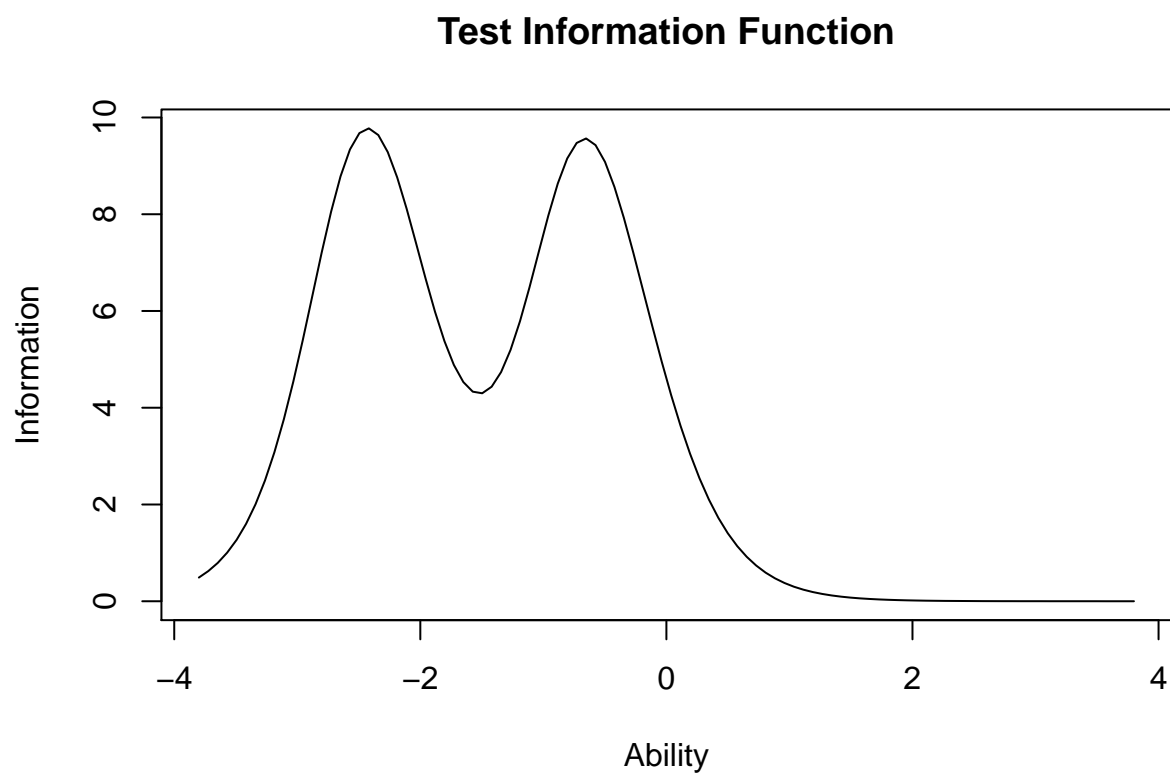


Item Response Category Characteristic Curves – Item: WarningSigns



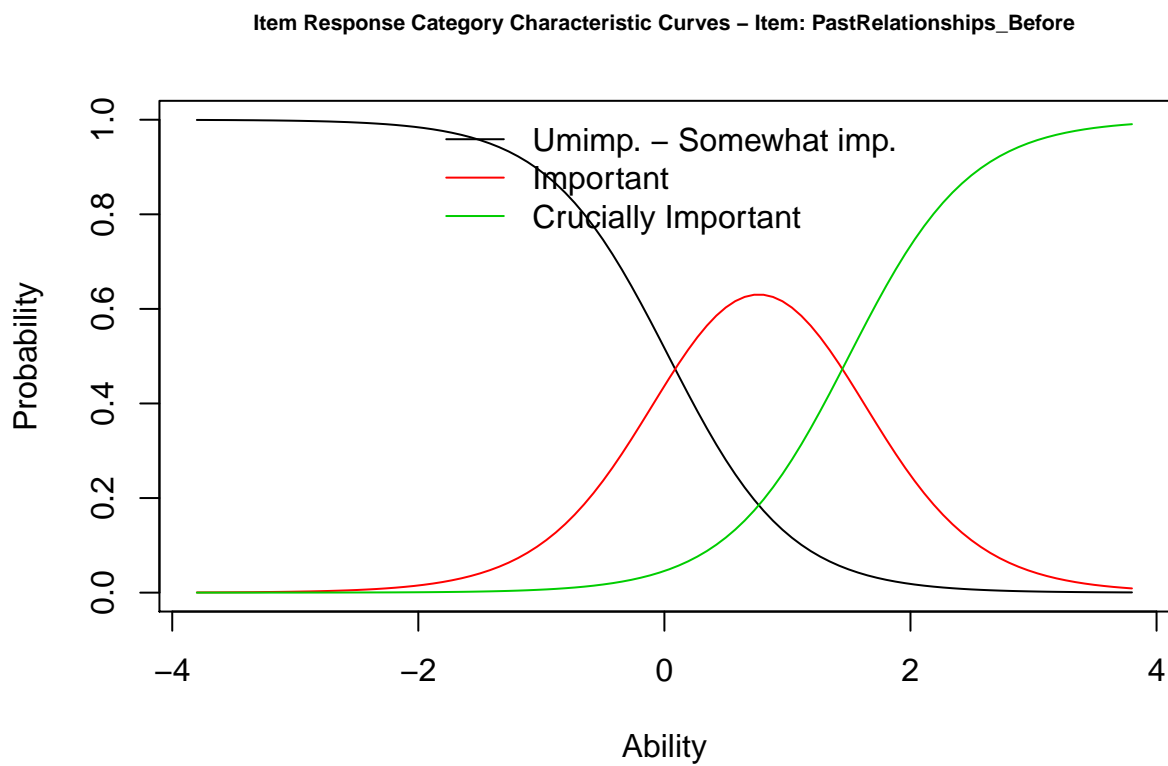
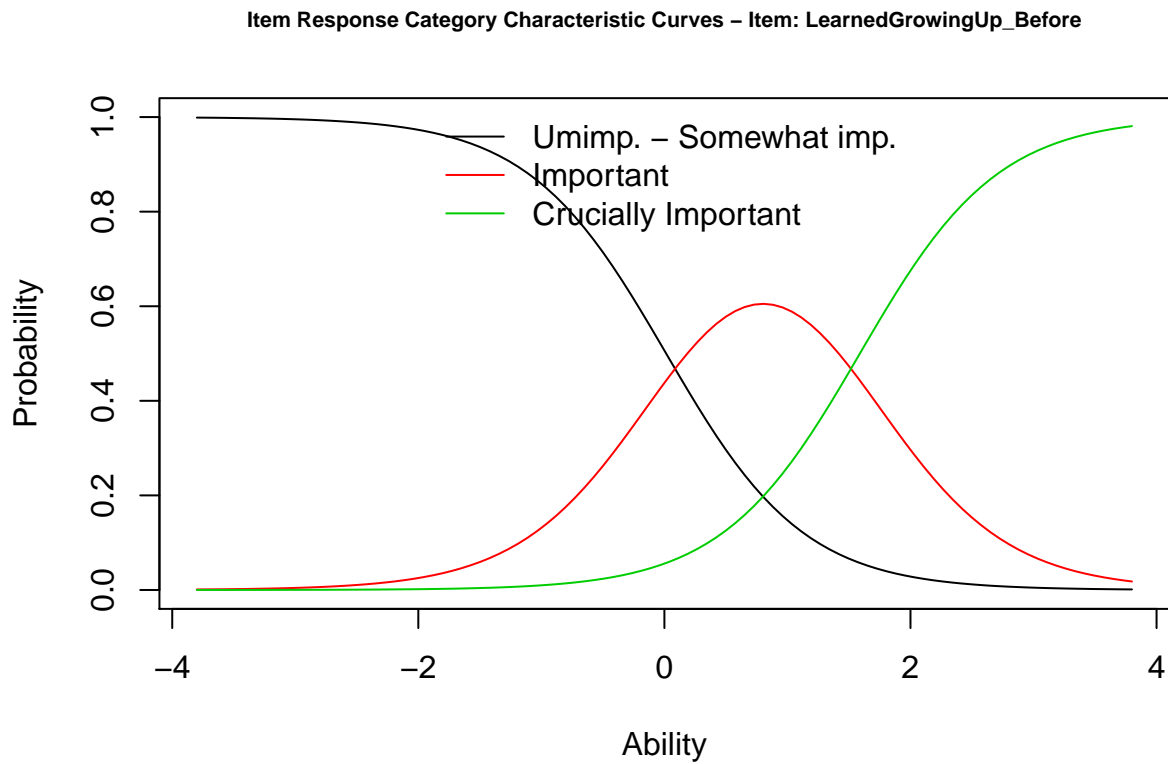
Item Information Curves



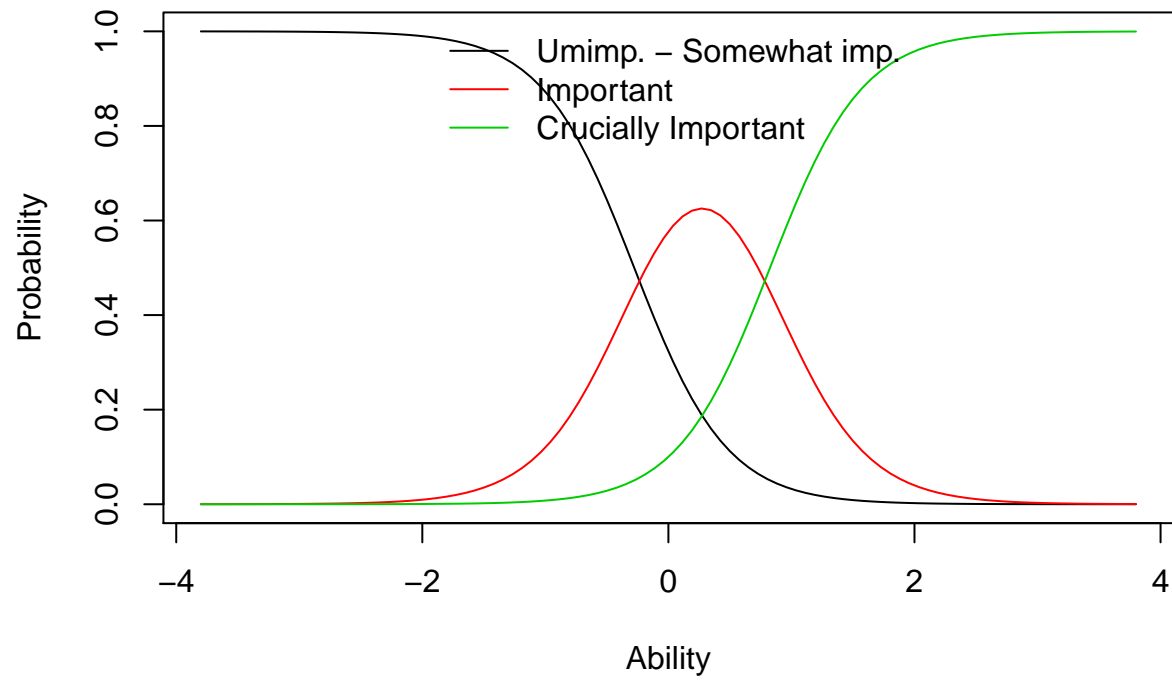


Joining, by = c("RightPartner", "LearnPartner", "PaceRelationship", "WarningSigns")

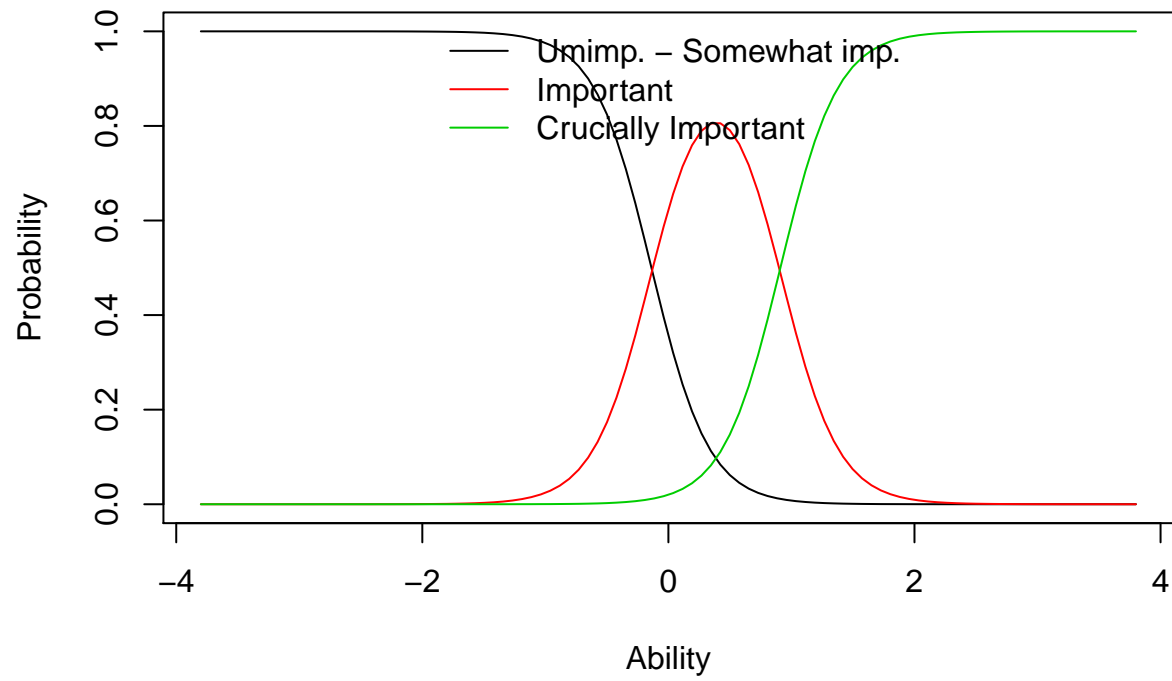
7.5 RP Pre



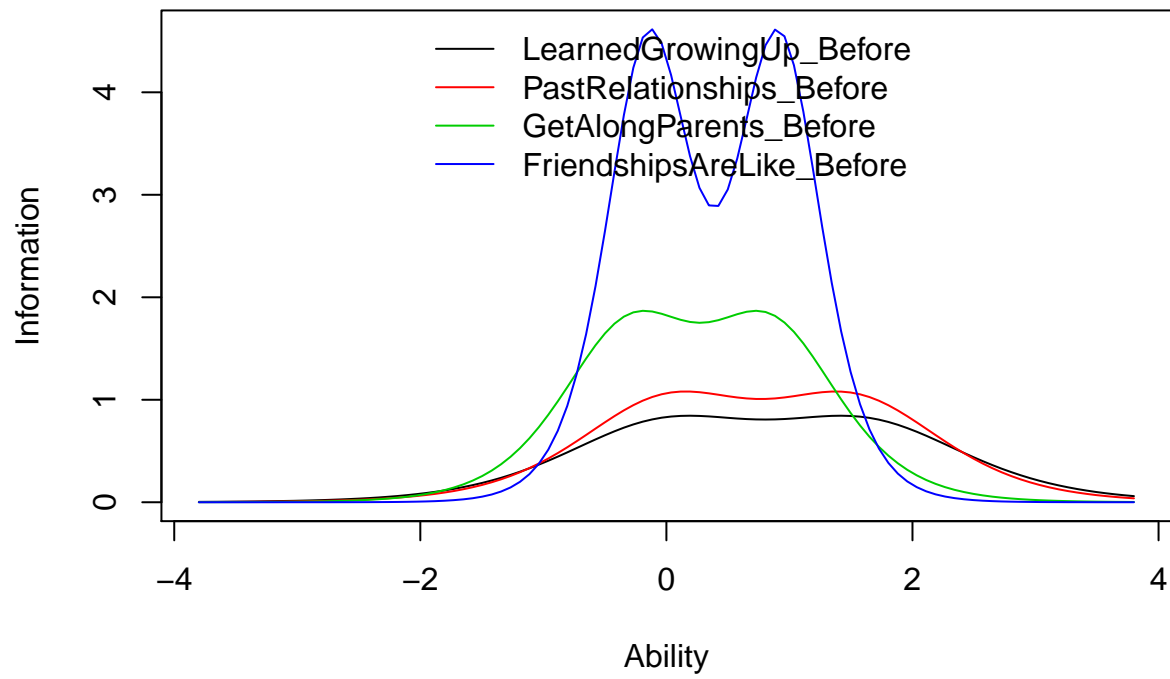
Item Response Category Characteristic Curves – Item: GetAlongParents_Before



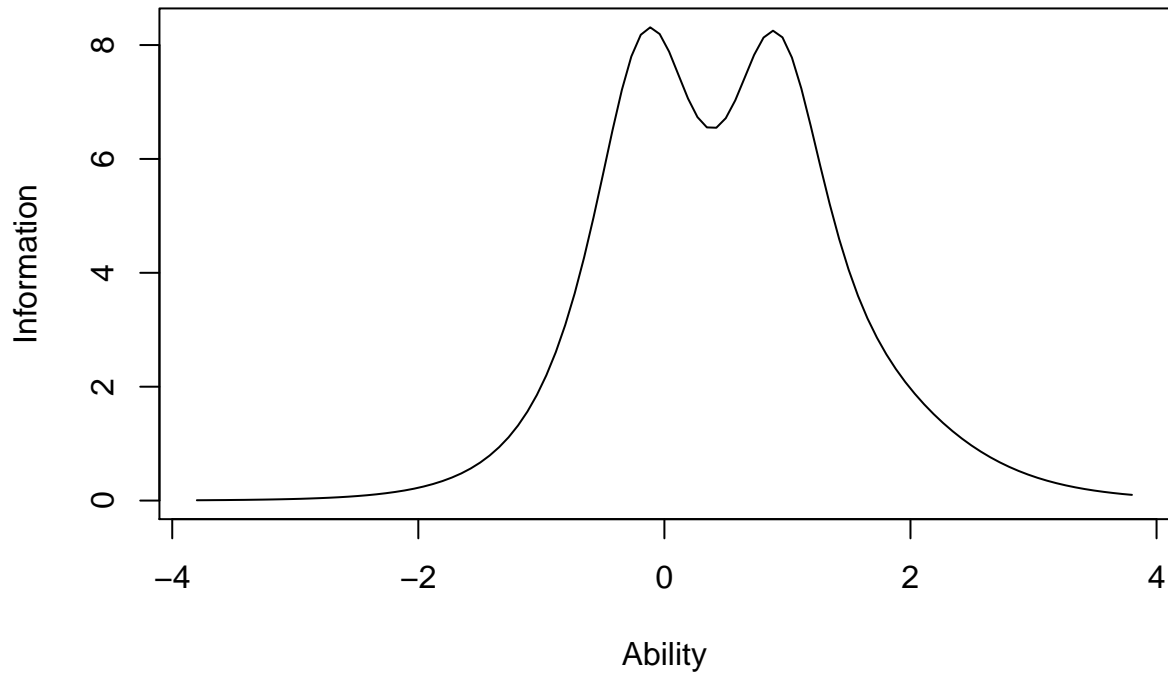
Item Response Category Characteristic Curves – Item: FriendshipsAreLike_Before



Item Information Curves



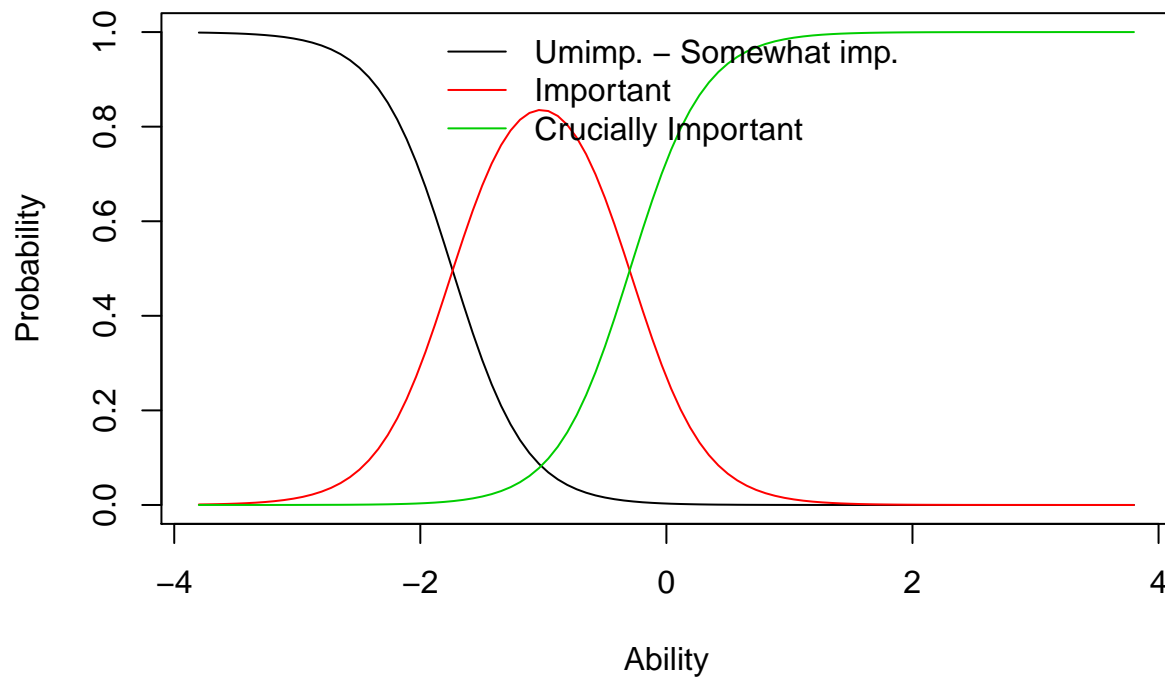
Test Information Function



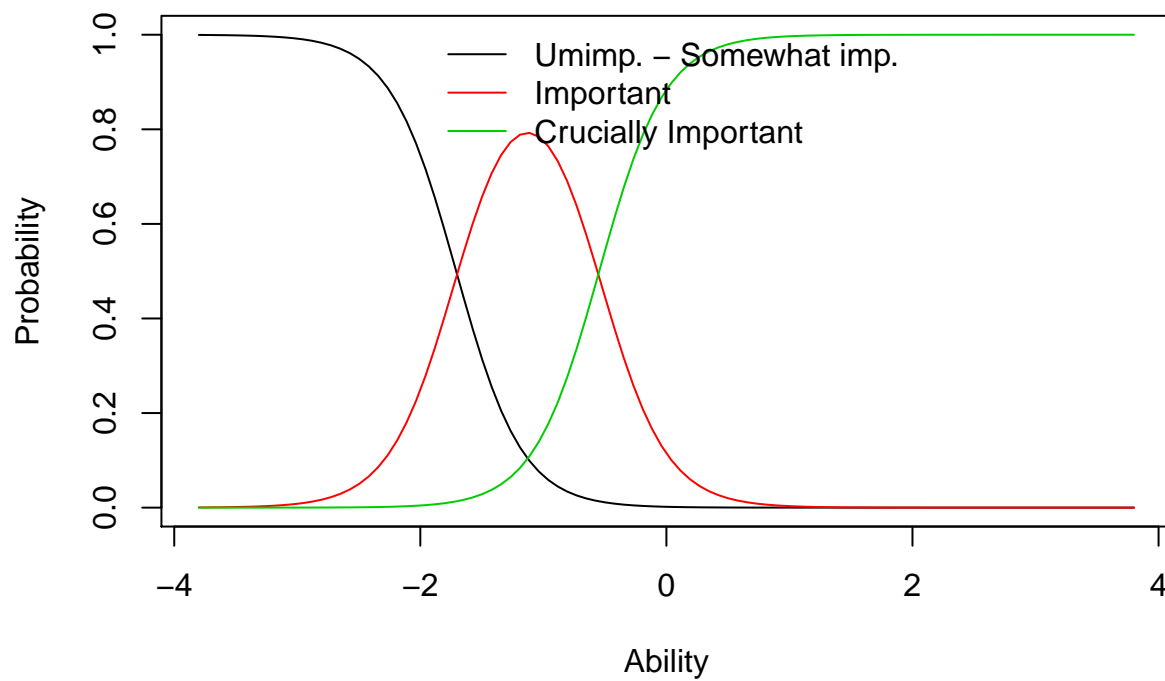
Joining, by = c("LearnedGrowingUp_Before", "PastRelationships_Before", "GetAlongParents_Before"

7.6 RP Post

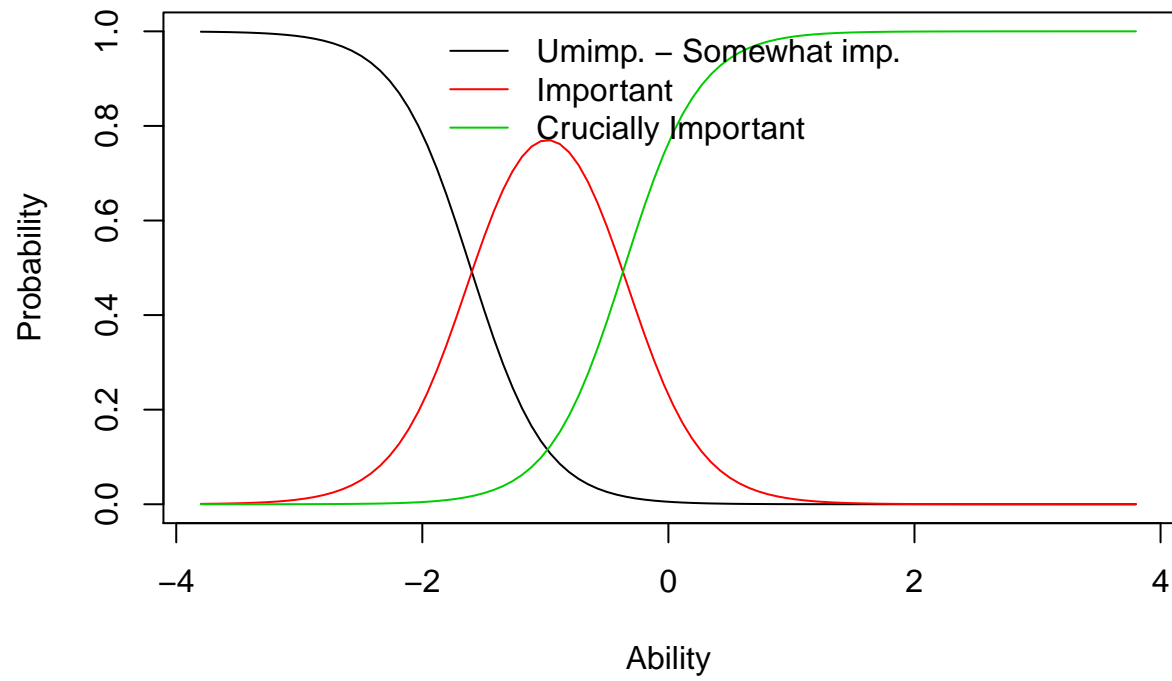
Item Response Category Characteristic Curves – Item: LearnedGrowingUp



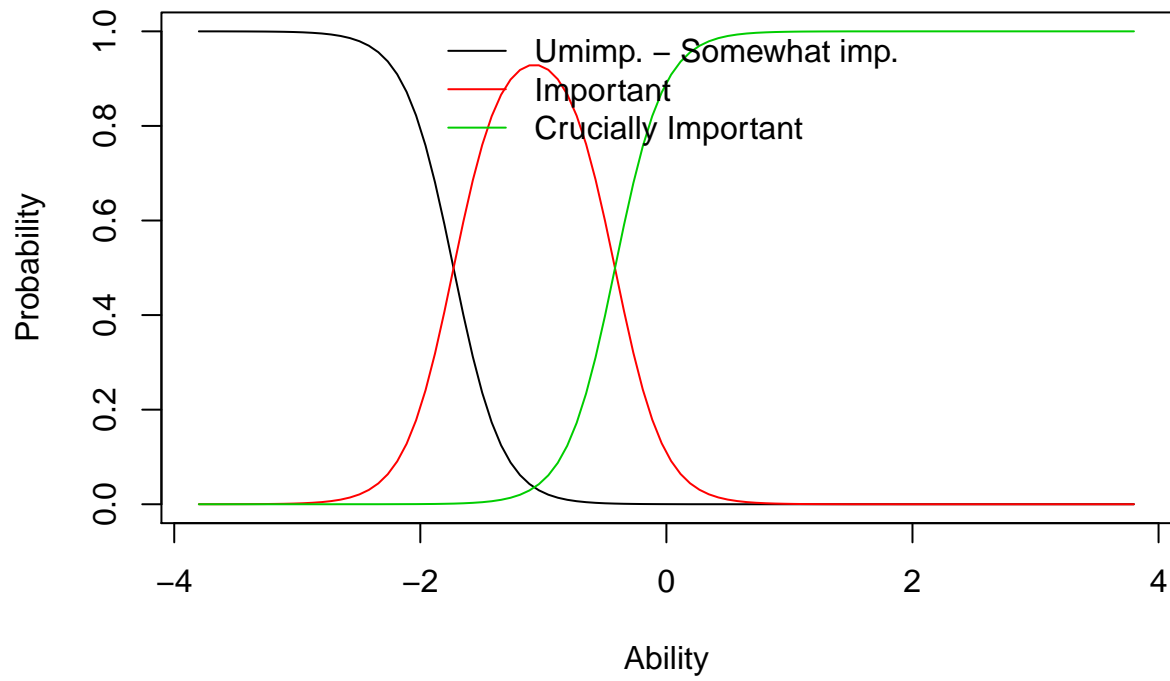
Item Response Category Characteristic Curves – Item: PastRelationships



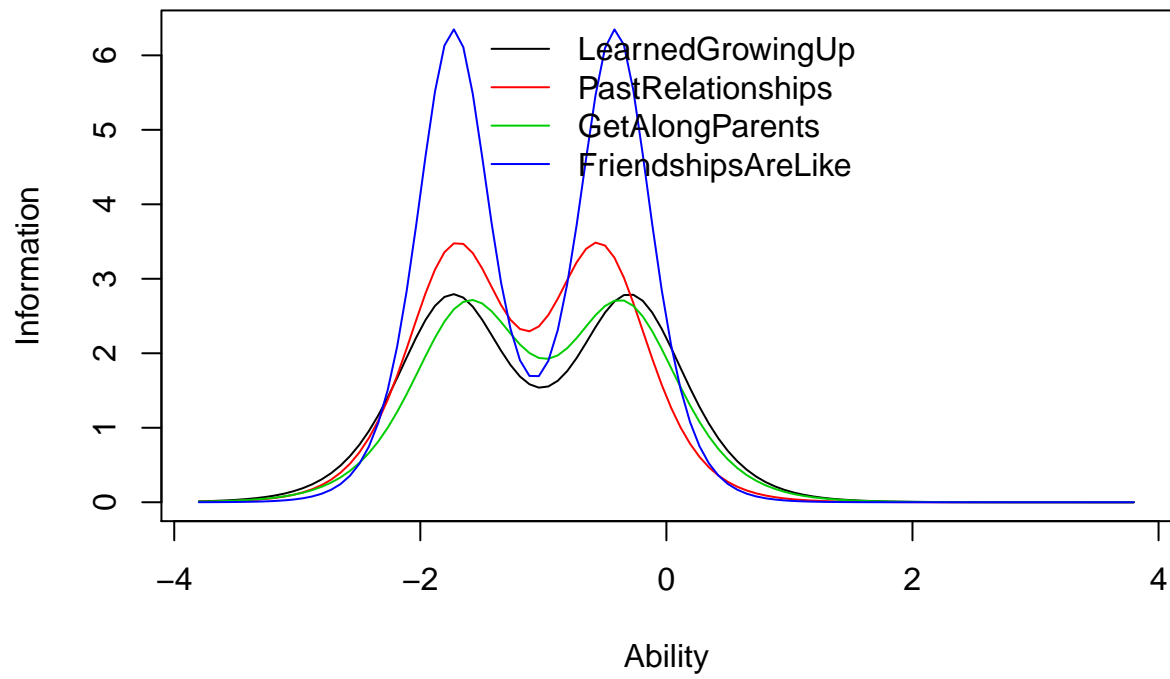
Item Response Category Characteristic Curves – Item: GetAlongParents

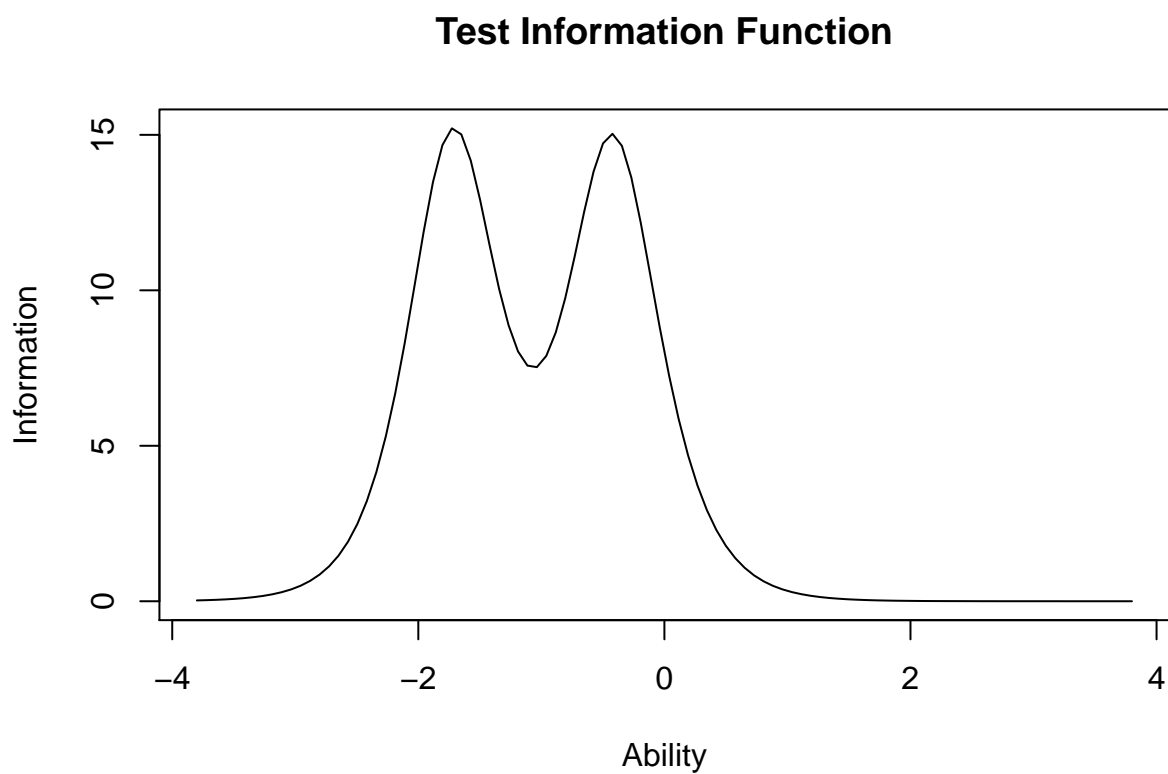


Item Response Category Characteristic Curves – Item: FriendshipsAreLike



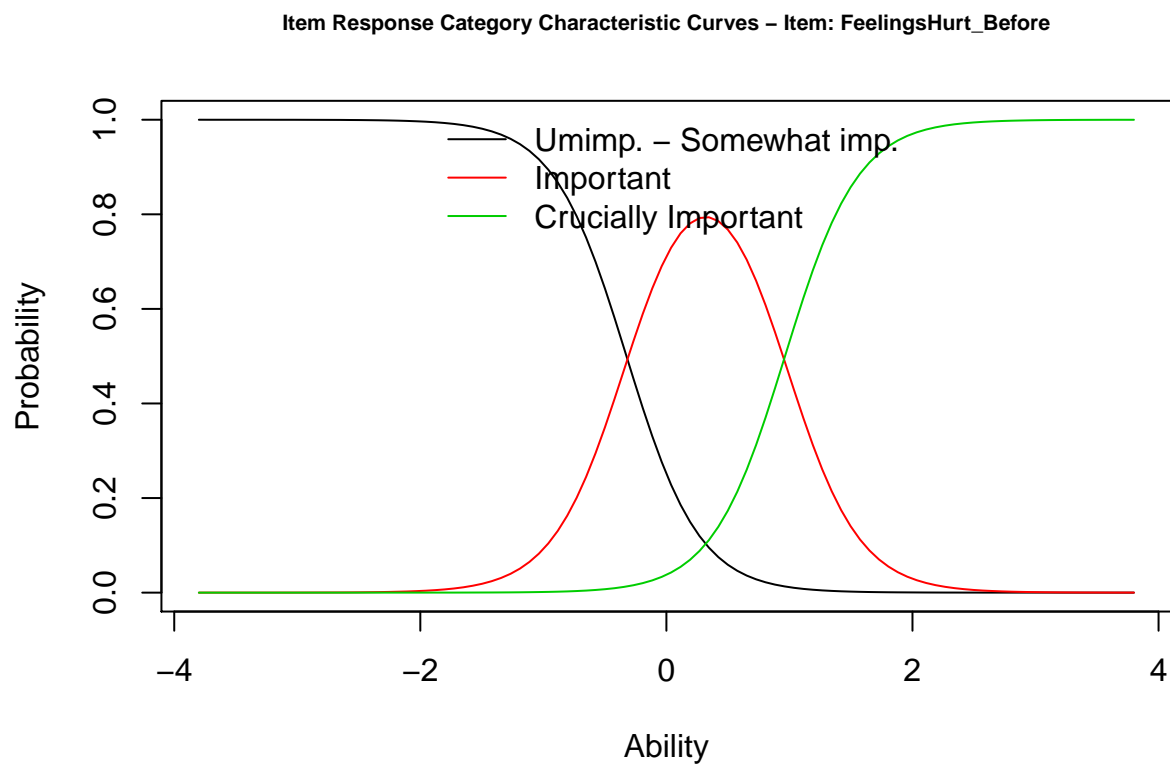
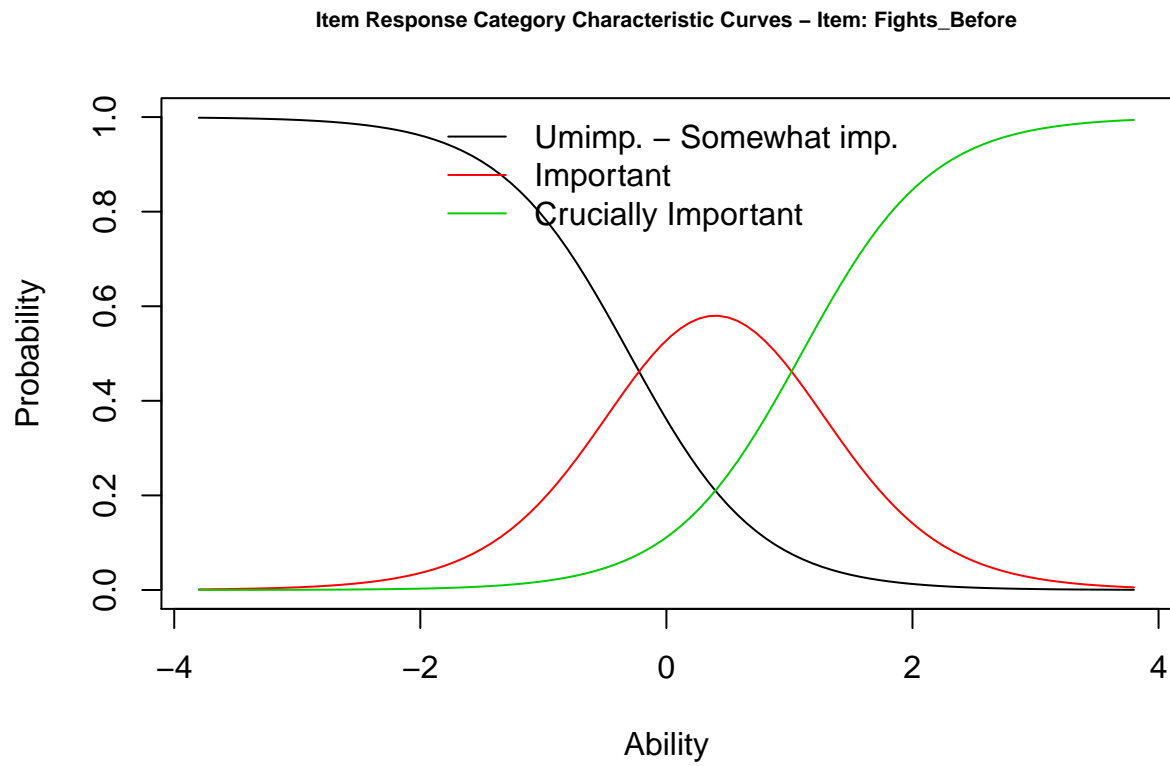
Item Information Curves



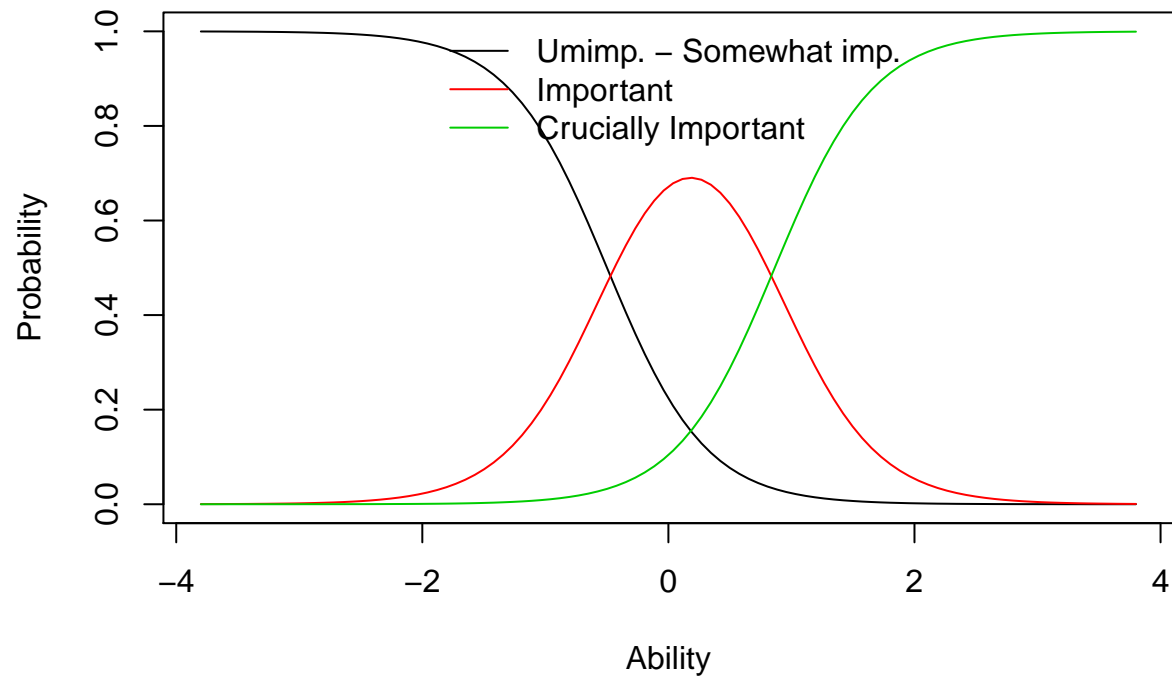


Joining, by = c("LearnedGrowingUp", "PastRelationships", "GetAlongParents", "FriendshipsAreLike

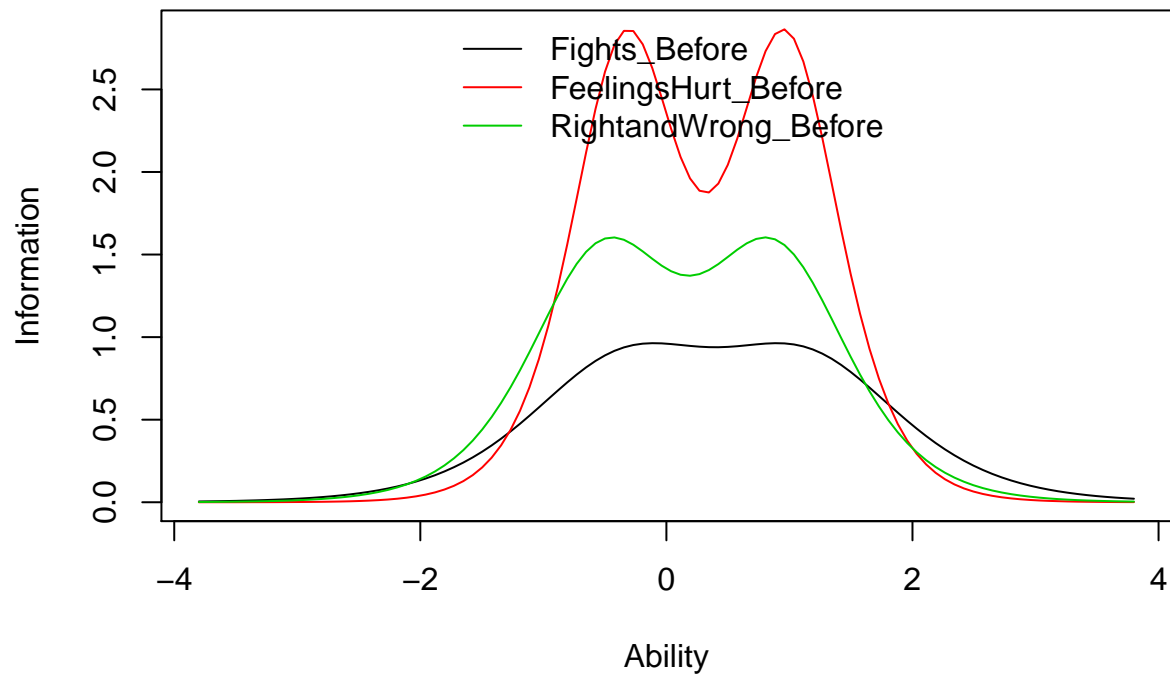
7.7 BRA Pre



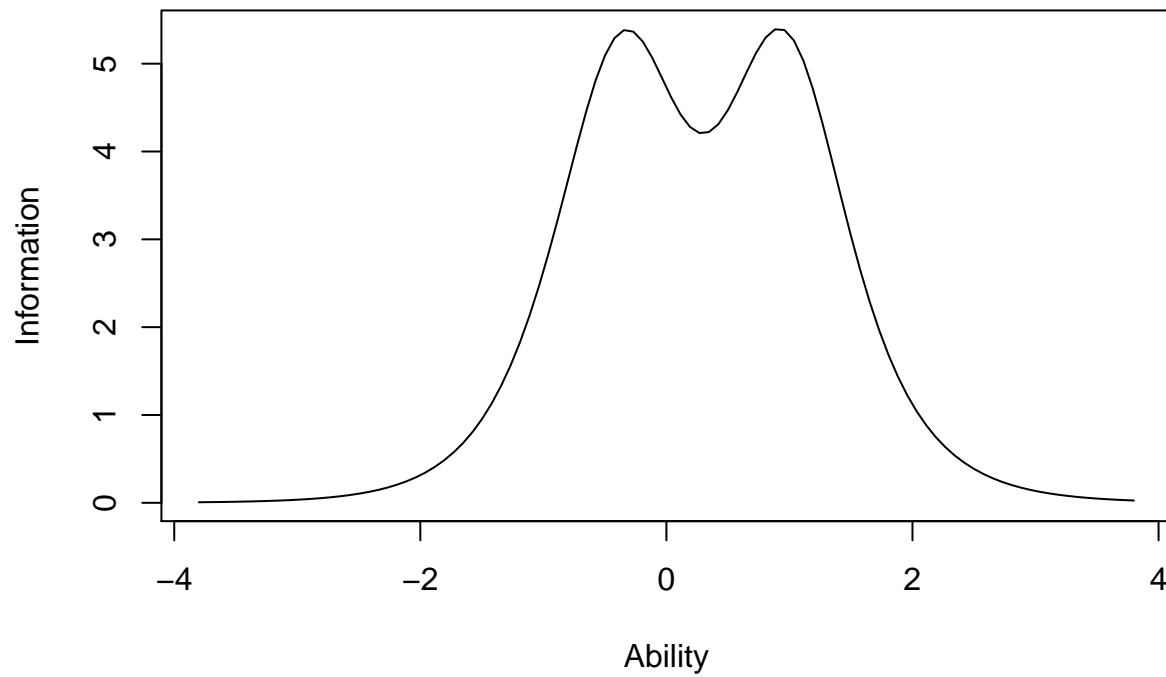
Item Response Category Characteristic Curves – Item: RightandWrong_Before



Item Information Curves

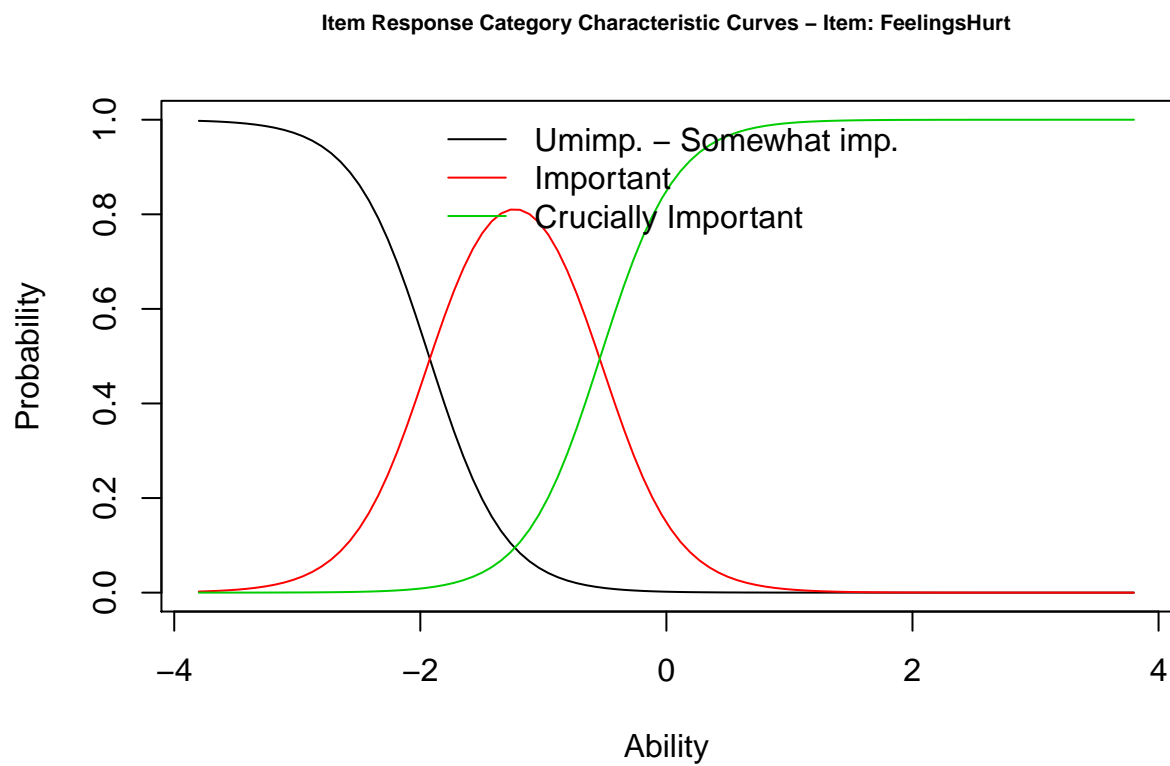
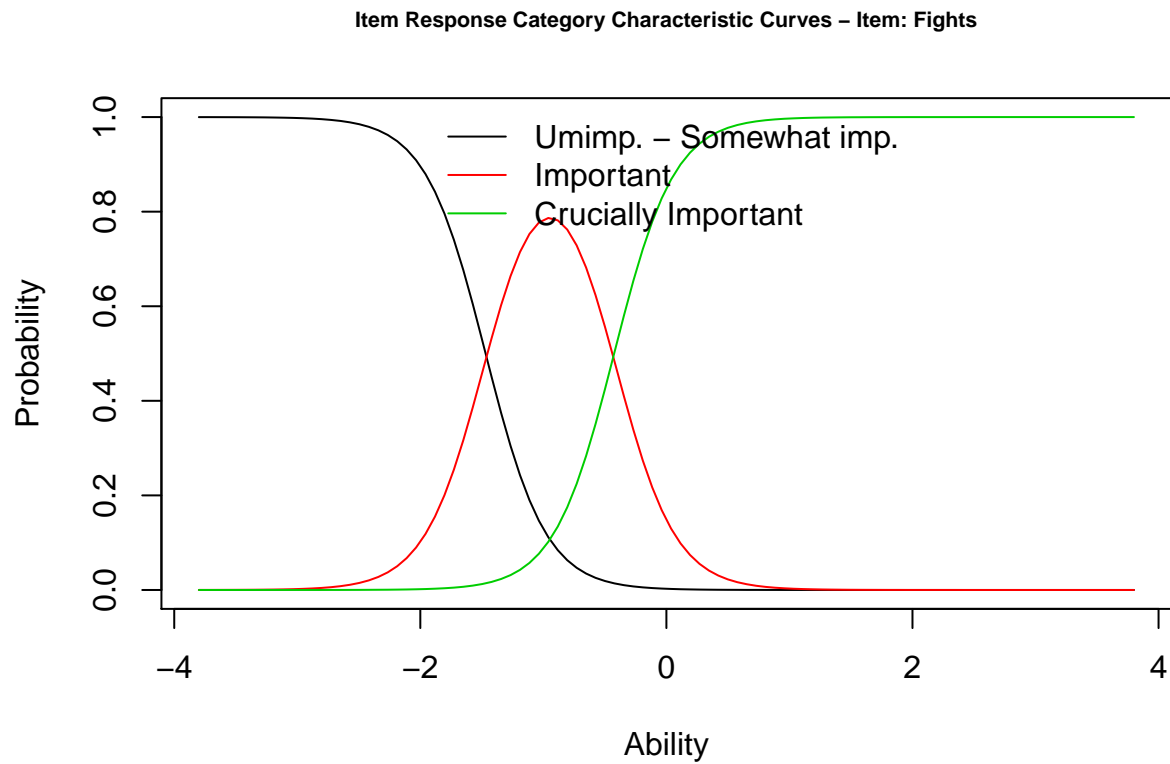


Test Information Function

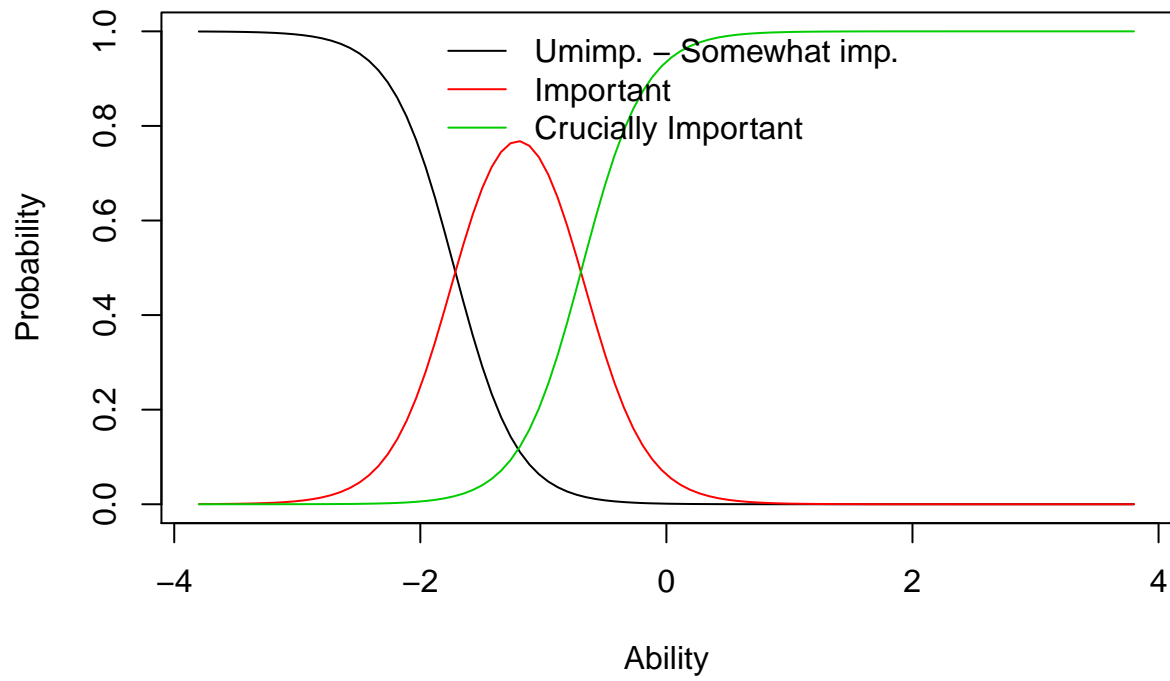


Joining, by = c("Fights_Before", "FeelingsHurt_Before", "RightandWrong_Before")

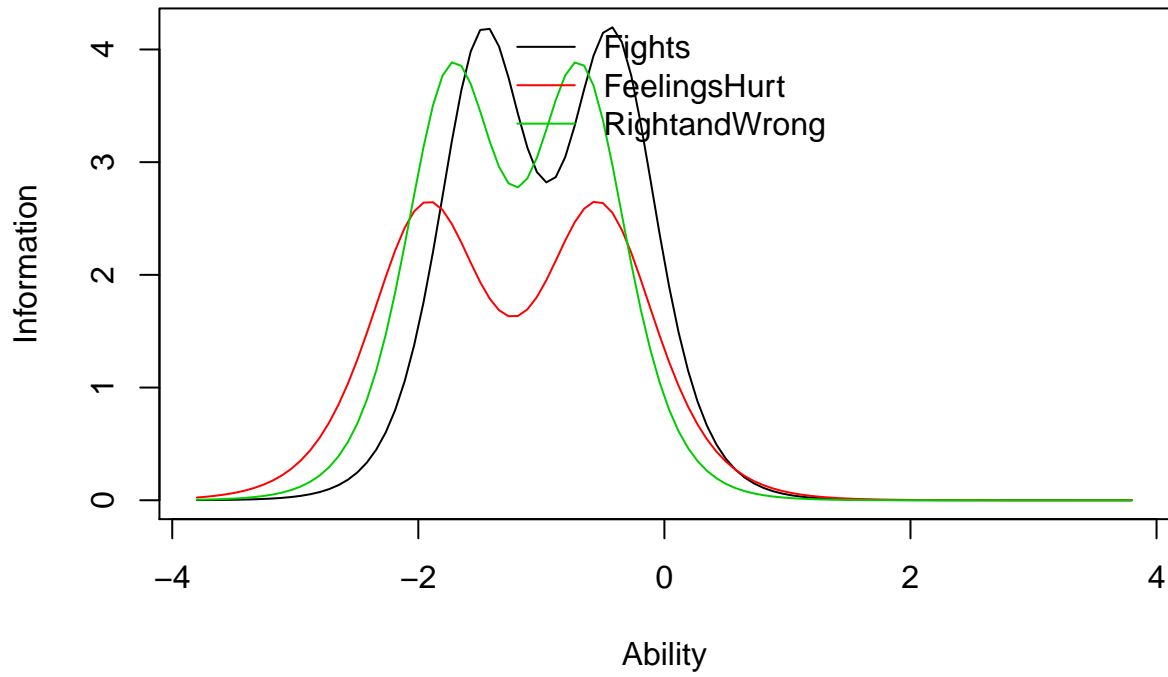
7.8 BRA Post



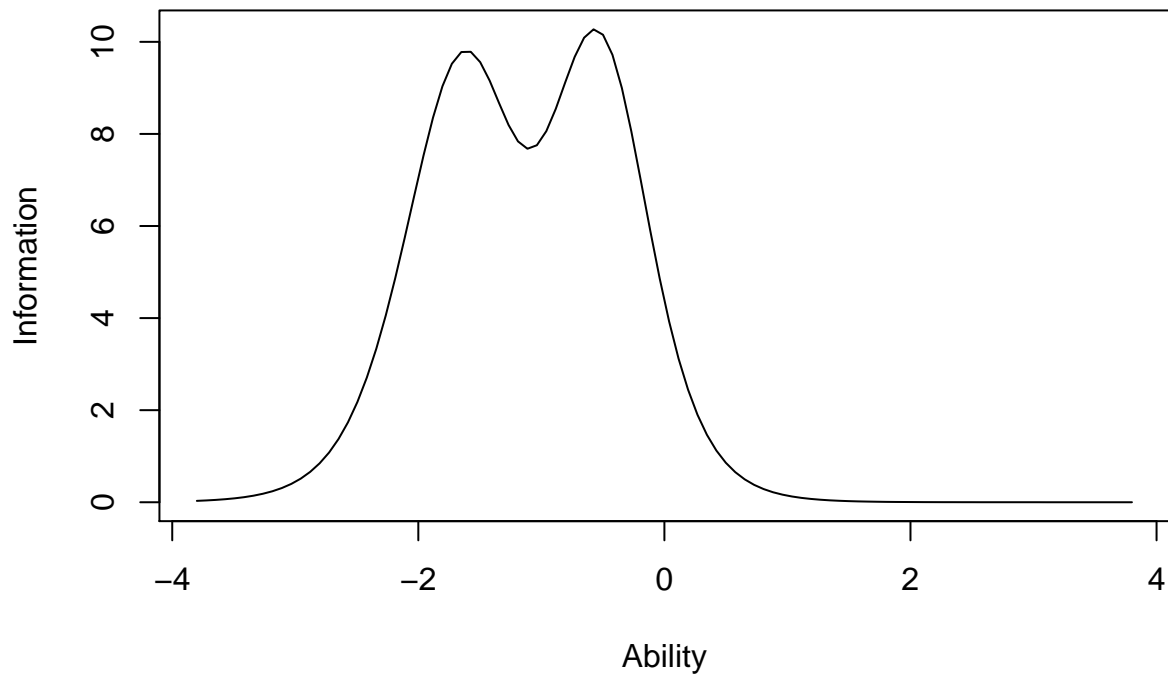
Item Response Category Characteristic Curves – Item: RightandWrong



Item Information Curves



Test Information Function



Joining, by = c("Fights", "FeelingsHurt", "RightandWrong")