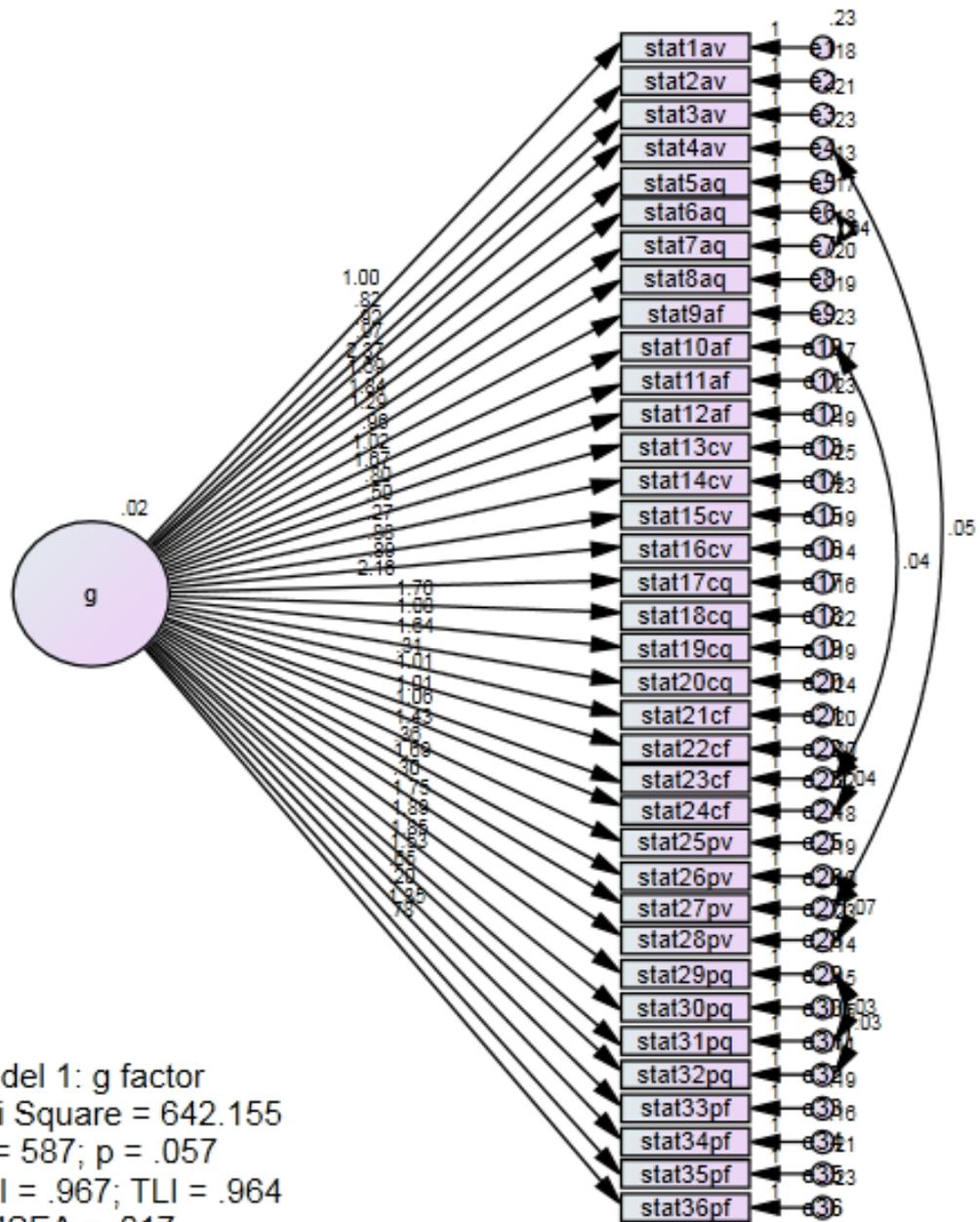


Supplementary Information

Figure S1. Path model with one first order factor, *g* (general intelligence) and error variances (*e*) allowed to covary.



Model 1: *g* factor
 Chi Square = 642.155
 df = 587; *p* = .057
 CFI = .967; TLI = .964
 RMSEA = .017
 AIC = 800.155; BIC = 1103.336

Figure S2. Path model with three first order factors – analytical, creative and practical abilities (Model 2).

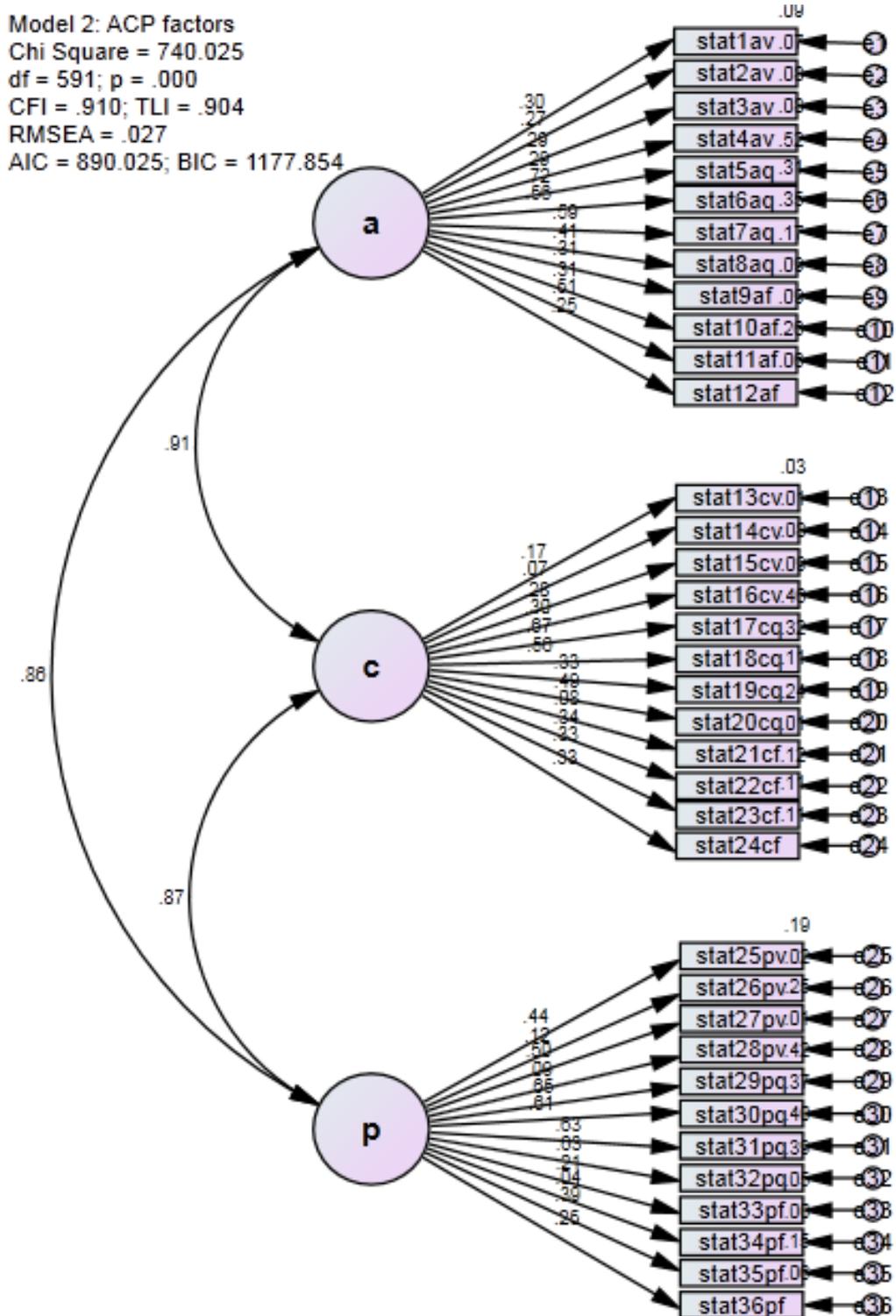


Figure S3. Path model with three first order factors – verbal, quantitative and figural content items (Model 3).

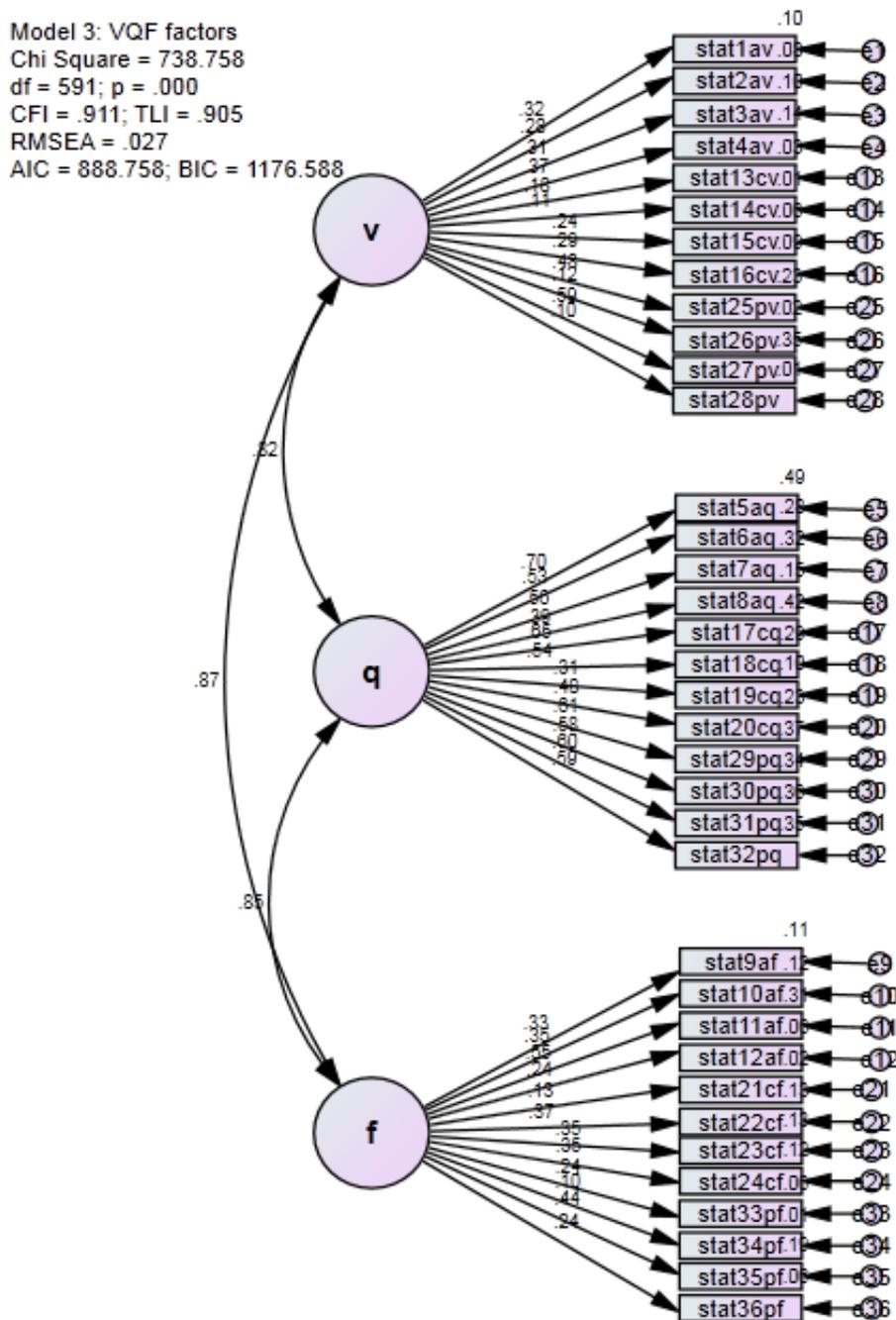


Figure S4. Path model with nine first order factors (Model 4).

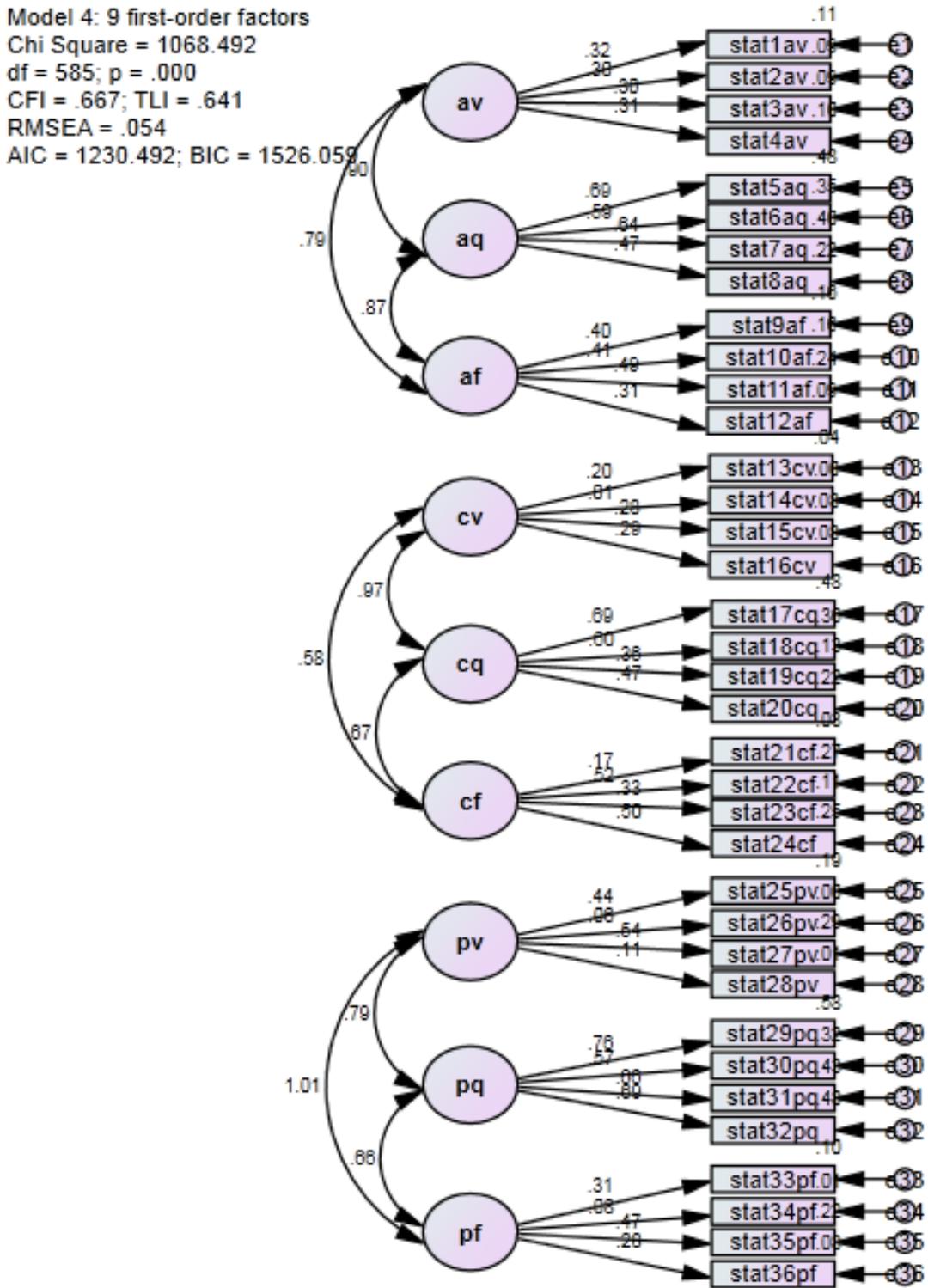


Figure S5. Path model with one second order factor and nine first order factors (Model 5).

Model 5: g hierarchical with 9 first-order factors
Chi Square = 692.126
df = 585; p = .001
CFI = .935; TLI = .930
RMSEA = .023
AIC = 854.126; BIC = 1164.983

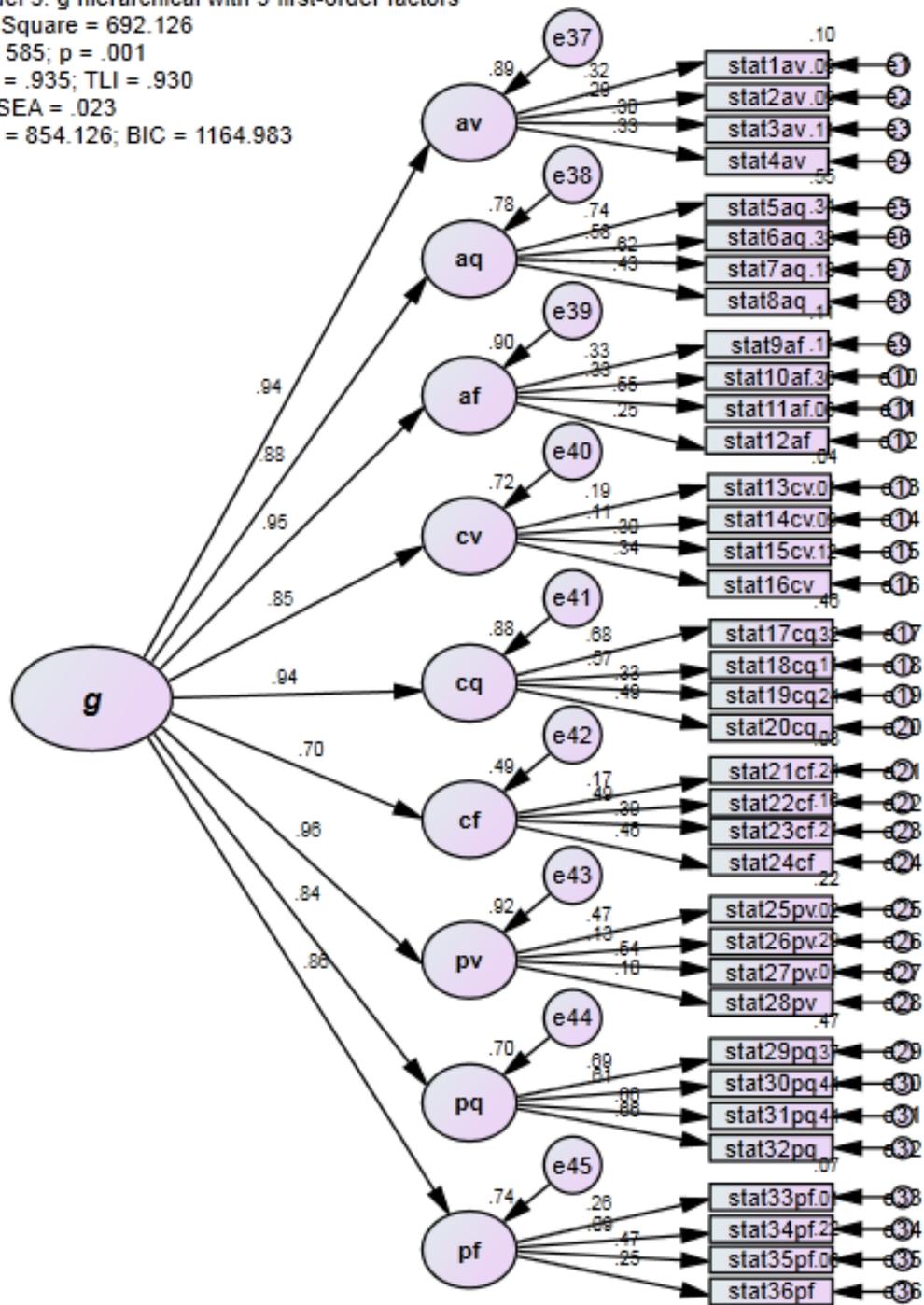


Figure S6. Path model with nine first order factors and three second-order factors (Model 6). a: analytical, c: creative, p: practical abilities.

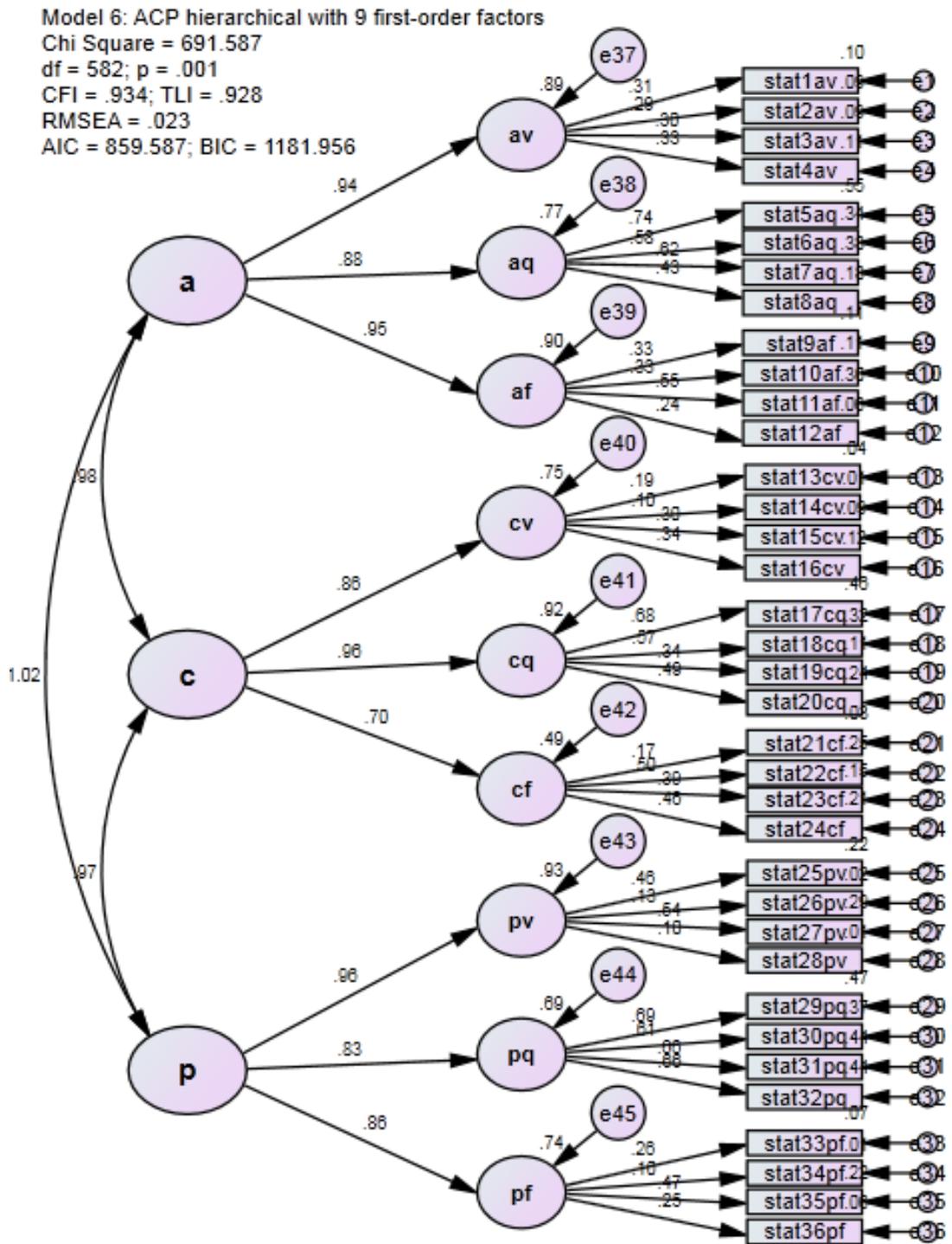


Figure S7. Path model with nine first order factors and three second-order factors (Model 7). v: verbal, q: quantitative, f: figural.

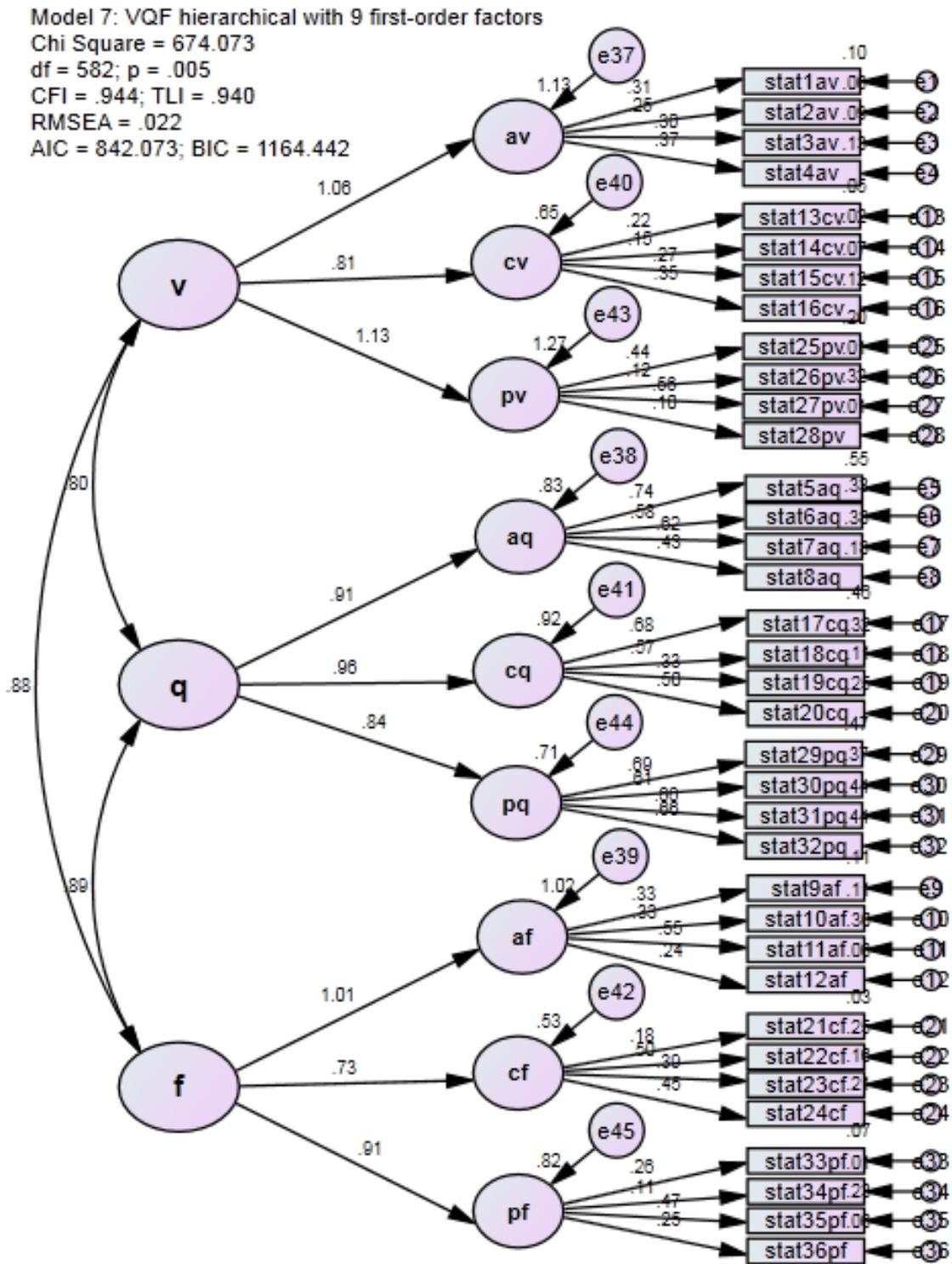


Figure S8. Path model with nine first order factor, three second-order factors (a: analytical, c: creative, p: practical abilities) and one third-order factor, g (Model 8).

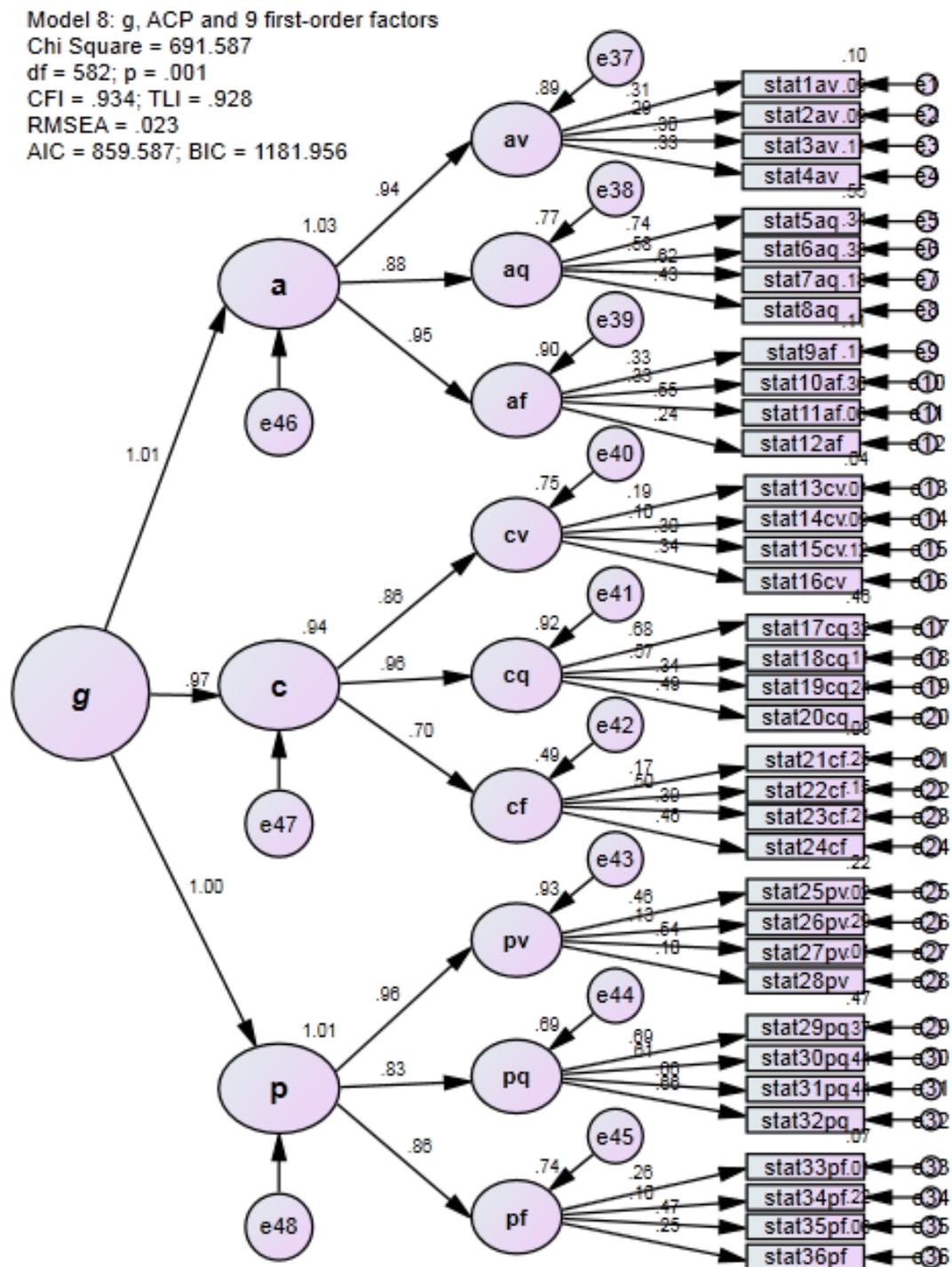


Figure S9. Modified g model predicting ACT/SAT scores, high school GPA and college GPA. GPA: grade point average.

Model 9: Modified g factor predicting GPA & ACT/SAT

Chi Square = 871.150

df = 698; p = .000

CFI = .914; TLI = .904

RMSEA = .027

AIC = 1113.150

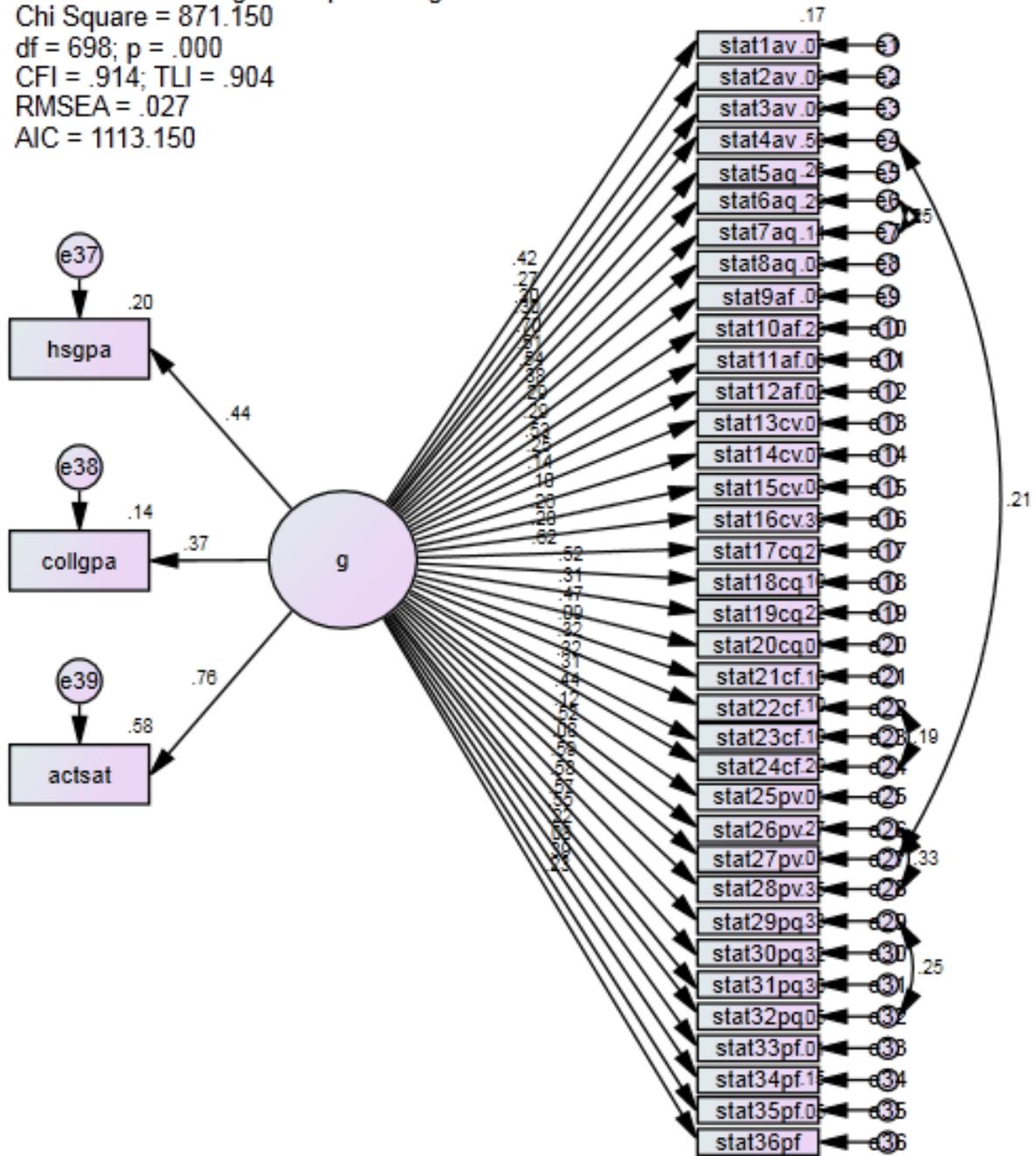


Figure S10. The triarchic model, Model 2, predicting ACT/SAT scores, high school GPA and college GPA. GPA: grade point average; a: analytical, c: creative, p: practical abilities.

Model 2a: ACP factors predicting GPA and ACT/SAT
 Chi Square = 916.231
 df = 696; p = .000
 CFI = .891; TLI = .878
 RMSEA = .030
 AIC = 1162.231

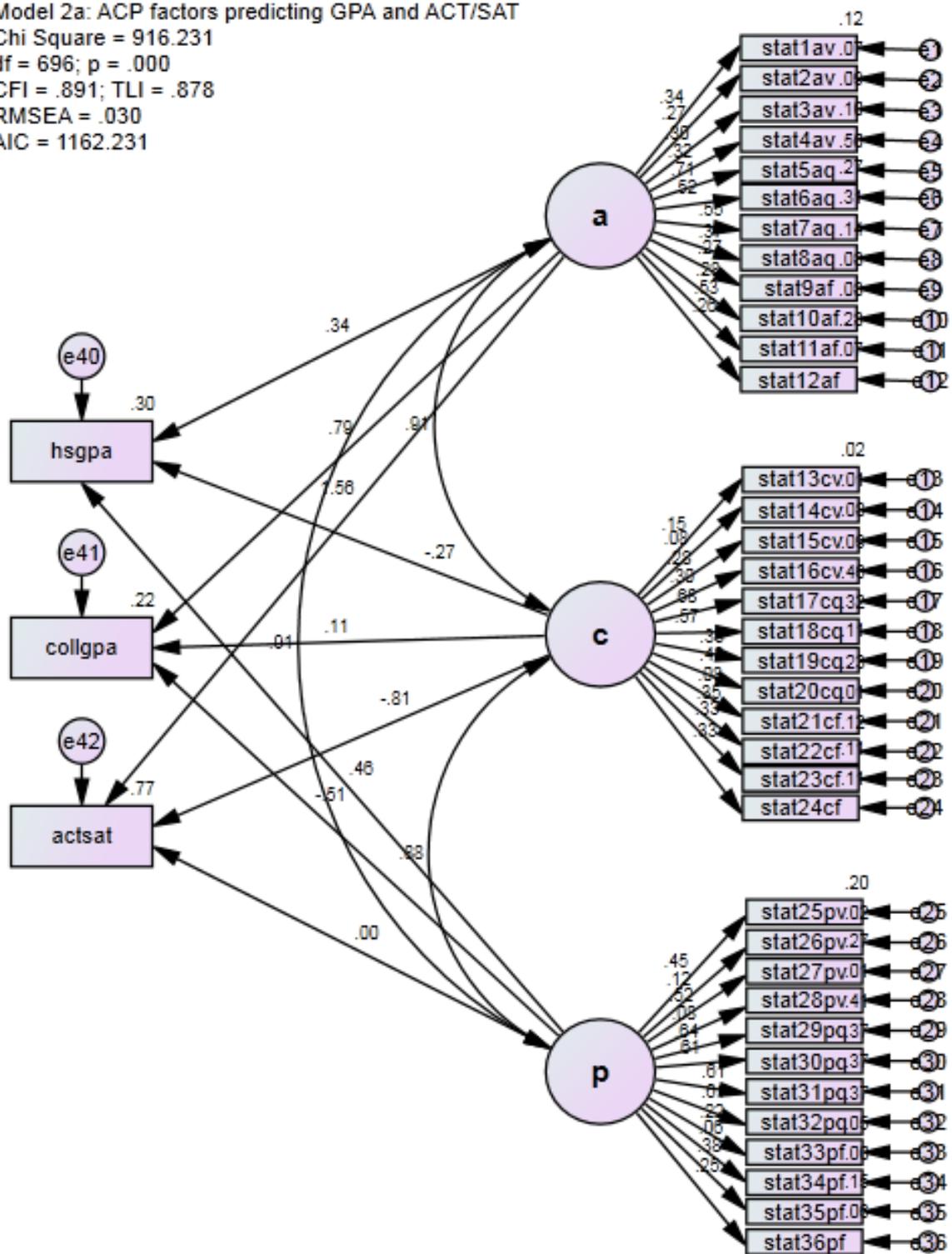


Figure S11. The hierarchical g and triarchic model, Model 8, predicting ACT/SAT scores, high school GPA and college GPA. GPA: grade point average; a: analytical, c: creative, p: practical abilities.

Model 8b: g and ACP predicting HS & Coll GPA and ACT/SAT
 Chi Square = 945.036
 df = 700; p = .000
 CFI = .879; TLI = .865
 RMSEA = .032
 AIC = 1183.036

