Summary(fit\_gaussian\_Sig) with 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 1518.798

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 0.1842 8.977e-16 0.4764 406.6

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 3.176e-08 1.942e-16 2.28e-08 71.69

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 2.541 2.195 2.934 1468

Location effects: Sigmoid ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) -0.04386 -1.01610 0.85793 1579 0.9400

PopCQ 0.50839 -0.47143 1.49707 1700 0.3200

PopQC 0.50842 -0.39146 1.66579 1565 0.3365

PopQH 0.74701 -0.58772 2.00575 1703 0.2565

StageBefore -0.01304 -1.31804 1.21193 1577 0.9706

PopCQ:StageBefore 0.16770 -1.11692 1.55532 1700 0.8024

PopQC:StageBefore 0.35563 -1.00716 1.74532 1573 0.6141

PopQH:StageBefore 1.66858 -0.04557 3.33002 1700 0.0588

Summary(fit\_gaussian\_Cop) w/ 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 2053.293

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 0.04925 6.963e-17 0.2911 34.44

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 4.716 2.735 6.576 1189

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 7.614 6.058 9.265 1344

Location effects: Forced\_Cop\_Attempt ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) 0.3217 -1.6622 2.2159 1700 0.754

PopCQ 0.9381 -1.1233 3.0317 1700 0.375

PopQC 1.6684 -0.4635 3.8365 1943 0.136

PopQH 1.4280 -1.2739 3.9501 1700 0.284

StageBefore -0.3519 -2.5559 2.0308 1768 0.794

PopCQ:StageBefore 0.7493 -1.6222 3.2027 1852 0.554

PopQC:StageBefore 0.1948 -2.1759 2.8933 1700 0.886

PopQH:StageBefore 0.5776 -2.4372 3.4253 1700 0.714

Summary(fit\_gaussian\_Swing) w/ 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 2712.528

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 5.981 4.285e-10 16.2 92.27

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 27.51 16.13 38.48 246.5

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 38.6 30.62 46.48 1666

Location effects: G\_Swing ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) 3.22696 -2.13466 7.98269 1700 0.21294

PopCQ 5.27431 -0.05636 10.46005 1700 0.05412 .

PopQC 7.02120 2.24685 12.56705 1700 0.00941 \*\*

PopQH 7.51921 1.35766 14.72975 911 0.02824 \*

StageBefore -1.81343 -7.16639 3.31490 1700 0.51059

PopCQ:StageBefore 1.15057 -4.60035 6.49549 1700 0.69529

PopQC:StageBefore -0.20261 -6.00200 5.37520 1700 0.93882

PopQH:StageBefore 2.27547 -4.79295 9.14927 1700 0.52000

Poisson fit Sig w/ 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 546.2617

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 1.308 4.195e-05 3.183 499.3

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 0.3166 9.339e-08 1.37 19.85

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 3.525 1.559 5.311 141.6

Location effects: Sigmoid ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) -60.025 -98.014 -11.611 0.955 <6e-04 \*\*\*

PopCQ 57.097 9.277 96.008 1.014 <6e-04 \*\*\*

PopQC 57.251 9.854 96.190 0.983 <6e-04 \*\*\*

PopQH 57.835 10.005 96.355 1.065 <6e-04 \*\*\*

StageBefore -20.646 -53.643 26.416 6.930 0.328

PopCQ:StageBefore 21.358 -24.894 55.355 6.500 0.311

PopQC:StageBefore 21.175 -25.053 55.049 6.919 0.316

PopQH:StageBefore 22.279 -23.550 56.620 5.945 0.296

Poisson fit Cop w/ 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 796.6054

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 0.4235 1.249e-16 1.483 176.6

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 4.168 2.081 6.348 192.4

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 1.91 0.9417 2.938 360.6

Location effects: Forced\_Cop\_Attempt ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) -3.67195 -6.21957 -1.30008 556.793 0.00118 \*\*

PopCQ 1.72154 -0.82432 4.08818 616.808 0.15294

PopQC 2.24236 0.03609 4.97284 565.319 0.05882 .

PopQH 1.68625 -1.27928 4.41083 571.563 0.24353

StageBefore -45.20945 -89.22718 -16.33950 2.839 < 6e-04 \*\*\*

PopCQ:StageBefore 45.67375 16.45606 89.32440 2.853 < 6e-04 \*\*\*

PopQC:StageBefore 44.99194 16.29244 88.94483 2.937 < 6e-04 \*\*\*

PopQH:StageBefore 46.19548 17.69563 90.62004 2.636 < 6e-04 \*\*\*

Poisson fit Swing w/ 20,000 iterations

Iterations = 3001:19991

Thinning interval = 10

Sample size = 1700

DIC: 2005.594

G-structure: ~idv(1):famil

post.mean l-95% CI u-95% CI eff.samp

1.famil 0.4323 0.05481 1.048 929.1

~idv(1):ID

post.mean l-95% CI u-95% CI eff.samp

1.ID 0.5976 0.3228 0.8679 863.4

R-structure: ~units

post.mean l-95% CI u-95% CI eff.samp

units 0.6262 0.4399 0.829 887.3

Location effects: G\_Swing ~ Pop \* Stage

post.mean l-95% CI u-95% CI eff.samp pMCMC

(Intercept) 0.50270 -0.42947 1.47742 1480 0.28824

PopCQ 1.12784 0.14471 2.06402 1543 0.02235 \*

PopQC 1.37584 0.33227 2.26220 1367 0.00706 \*\*

PopQH 1.30126 0.16573 2.38353 1475 0.02824 \*

StageBefore -0.82275 -1.78369 0.08948 1109 0.07765 .

PopCQ:StageBefore 0.64425 -0.26842 1.68356 1117 0.18471

PopQC:StageBefore 0.49808 -0.50304 1.53847 1145 0.34941

PopQH:StageBefore 0.68180 -0.44259 1.90731 1395 0.24706