SR paper analyses for JAPD resubmission

NRG

3/4/2021

Contents

Descriptives

Data set descriptives for these analyses:

```
SRALL.data <- dplyr::select(PCSR.data, childAge, sex, matYrsEd, t_income, Snack_avg, FishFlanker_RawSco

# remove empty rows (subjects who consented but never provided any data)
SR.data <- SRALL.data[-c(19, 28, 40, 91, 93),]

desc.data <- dplyr::select(PCSR.data, Snack_avg, FishFlanker_RawScore, ZooGNG_percCorr, FishGNG_percCor

corr.data <- dplyr::select(PCSR.data, Snack_avg, FishFlanker_RawScore, ChildGNGcomp, Food_RegLCRC, FLA_

apa.cor.table(corr.data, filename="corrTable.doc")
```

```
##
##
## Means, standard deviations, and correlations with confidence intervals
##
##
##   Variable                M      SD    1           2           3
##   1. Snack_avg            2.01   1.66
##
##   2. FishFlanker_RawScore 21.01  12.43 .25*
##                                        [.02, .45]
```

```
##
##   3. ChildGNGcomp        -0.02  0.91  .18          .54**
##                                      [-.03, .38] [.35, .69]
##
##   4. Food_RegLCRC        1.74   0.88  .27*         .26*         -.02
##                                      [.05, .46]  [.02, .47]   [-.24, .21]
##
##   5. FLA_ACC_diffx100    -9.70  8.13  .11          .15          .06
##                                      [-.11, .32] [-.09, .37] [-.17, .28]
##
##   6. t_momGNG            0.67   0.19  .08          .26*         -.05
##                                      [-.14, .30] [.02, .47]   [-.27, .18]
##
##   7. matYrsEd            15.15  2.47  .15          .24*         .30**
##                                      [-.06, .35] [.01, .45]   [.09, .48]
##
##   8. t_income            141.91 44.67 .23*         .40**        .41**
##                                      [.02, .42]  [.18, .58]   [.21, .58]
##
##   4           5           6          7
##
##
##
##
##
##
##
##
##
##
##
##   .10
##   [-.13, .32]
##
##   .10         .14
##   [-.12, .32] [-.09, .35]
##
##   .09         .26*        .24*
##   [-.13, .30] [.04, .45]  [.02, .44]
##
##   .09         .01         .24*       .54**
##   [-.14, .31] [-.21, .24] [.02, .44] [.38, .68]
##
##
## Note. M and SD are used to represent mean and standard deviation, respectively.
## Values in square brackets indicate the 95% confidence interval.
## The confidence interval is a plausible range of population correlations
## that could have caused the sample correlation (Cumming, 2014).
##  * indicates p < .05. ** indicates p < .01.
##
```

```r
stargazer(as.data.frame(desc.data), type = "text",
          title = "Task and Parenting Descriptive Statistics", digits = 2,
          covariate.labels = c("Child appetitive SR (snack delay, score 0-1 x 4 trials)",
```

```
                                "Child attentional control (Flanker, raw score)",
                                "Child inhibitory control (Zoo GNG, % correct)",
                                "Child inhibitory control (Fish GNG, % correct)",
                                "Mother appetitive SR (Food craving self-regulation, Look Crave - Regula
                                "Mother attentional control (Flanker, % correct incongruent-congruent*",
                                "Mother inhibitory control (GNG, % correct)"),
          omit.summary.stat = c("p25", "p75"), min.max = TRUE, notes = "Raw data shown here; outliers we
```

```
##
## Task and Parenting Descriptive Statistics
## ==========================================================================================================
## Statistic                                                                      N  Mean  St. Dev.
## ----------------------------------------------------------------------------------------------------------
## Child appetitive SR (snack delay, score 0-1 x 4 trials)                        88 2.01    1.66
## Child attentional control (Flanker, raw score)                                 73 21.01  12.43
## Child inhibitory control (Zoo GNG, % correct)                                  83 51.68  14.39
## Child inhibitory control (Fish GNG, % correct)                                 66 66.27  16.87
## Mother appetitive SR (Food craving self-regulation, Look Crave - Regulate Crave)* 79 1.74    0.88
## Mother attentional control (Flanker, % correct incongruent-congruent*          80 -9.70   8.13
## Mother inhibitory control (GNG, % correct)                                     79 95.50   4.01
## ----------------------------------------------------------------------------------------------------------
## Raw data shown here; outliers were winsorized 3SD from the mean for analyses (marked with an *).
```

```
write.csv(SR.data, "SRdata.csv")
```

Multiple Imputation

Correlations with imputed data

```
library(miceadds)
```

```
## * miceadds 3.11-6 (2021-01-21 11:48:47)
```

```
corr.vars1 <- c("Snack_avg", "FishFlanker_RawScore", "ChildGNGcomp", "Food_RegLCRC", "FLA_ACC_diffx100"
corr.data <- SR.data[corr.vars1]

stargazer(corr.data, type = "text")
```

```
##
## ========================================================================
## Statistic            N   Mean   St. Dev.   Min   Pctl(25) Pctl(75)   Max
## ------------------------------------------------------------------------
## Snack_avg            88  2.011   1.656      0       0        4        4
## FishFlanker_RawScore 73 21.010   12.430   4.000   11.000   36.000   40.000
## ChildGNGcomp         85 -0.017   0.906   -3.000   -0.500   0.640    1.620
## Food_RegLCRC         79  1.740   0.881    0.104   1.061    2.350    3.750
## FLA_ACC_diffx100     80 -9.697   8.128   -38.380 -14.000   -3.000   0.000
## t_momGNG             79  0.671   0.194    0.088   0.593    0.801    0.942
```

```
## matYrsEd              88 15.150   2.466      8       13      16.5     22
## t_income              86 141.900  44.670   0.000  110.900  169.600  251.300
## ----------------------------------------------------------------------
```

```
apa.cor.table(corr.data, filename="Table2.doc", table.number=2)
```

```
##
##
## Table 2
##
## Means, standard deviations, and correlations with confidence intervals
##
##
##   Variable                M      SD    1            2            3
##   1. Snack_avg            2.01   1.66
##
##   2. FishFlanker_RawScore 21.01  12.43 .25*
##                                        [.02, .45]
##
##   3. ChildGNGcomp         -0.02  0.91  .18          .54**
##                                        [-.03, .38]  [.35, .69]
##
##   4. Food_RegLCRC         1.74   0.88  .27*         .26*         -.02
##                                        [.05, .46]   [.02, .47]   [-.24, .21]
##
##   5. FLA_ACC_diffx100     -9.70  8.13  .11          .15          .06
##                                        [-.11, .32]  [-.09, .37]  [-.17, .28]
##
##   6. t_momGNG             0.67   0.19  .08          .26*         -.05
##                                        [-.14, .30]  [.02, .47]   [-.27, .18]
##
##   7. matYrsEd             15.15  2.47  .15          .24*         .30**
##                                        [-.06, .35]  [.01, .45]   [.09, .48]
##
##   8. t_income             141.91 44.67 .23*         .40**        .41**
##                                        [.02, .42]   [.18, .58]   [.21, .58]
##
##   4            5            6           7
##
##
##
##
##
##
##
##
##
##
##
##   .10
##   [-.13, .32]
##
##   .10          .14
##   [-.12, .32]  [-.09, .35]
```

```
##
##   .09         .26*        .24*
##   [-.13, .30] [.04, .45]  [.02, .44]
##
##   .09         .01         .24*        .54**
##   [-.14, .31] [-.21, .24] [.02, .44] [.38, .68]
##
##
## Note. M and SD are used to represent mean and standard deviation, respectively.
## Values in square brackets indicate the 95% confidence interval.
## The confidence interval is a plausible range of population correlations
## that could have caused the sample correlation (Cumming, 2014).
##  * indicates p < .05. ** indicates p < .01.
##
```

```r
micombine.cor(impData, variables = corr.vars1, conf.level = 0.95, method = "pearson", nested = FALSE, pa
```

variable1	variable2	r	rse	fisher_r	fisher_rse	fmi	t	p	lower95	upper95
matYrsEd	t_income	0.5503	0.0761	0.6189	0.1092	0.0129	5.6687	0.0000	0.3841	0.6820
matYrsEd	Snack_avg	0.1523	0.1059	0.1535	0.1085	0.0000	1.4148	0.1571	-0.0591	0.3505
matYrsEd	FishFlanker_RawScore	0.2717	0.1048	0.2787	0.1132	0.0839	2.4616	0.0138	0.0567	0.4627
matYrsEd	ChildGNGcomp	0.2570	0.1046	0.2629	0.1120	0.0628	2.3476	0.0189	0.0434	0.4482
matYrsEd	Food_RegLCRC	0.1212	0.1173	0.1218	0.1191	0.1754	1.0232	0.3062	-0.1111	0.3410
matYrsEd	FLA_ACC_diffx100	0.2573	0.1025	0.2633	0.1098	0.0247	2.3971	0.0165	0.0480	0.4451
matYrsEd	t_momGNG	0.2678	0.1042	0.2745	0.1123	0.0678	2.4445	0.0145	0.0544	0.4578
t_income	Snack_avg	0.2036	0.1049	0.2065	0.1095	0.0185	1.8863	0.0593	-0.0081	0.3979
t_income	FishFlanker_RawScore	0.3966	0.0948	0.4196	0.1125	0.0712	3.7302	0.0002	0.1965	0.5649
t_income	ChildGNGcomp	0.4101	0.0917	0.4357	0.1102	0.0318	3.9528	0.0001	0.2162	0.5728
t_income	Food_RegLCRC	0.1204	0.1208	0.1210	0.1226	0.2254	0.9871	0.3236	-0.1187	0.3464
t_income	FLA_ACC_diffx100	-0.0132	0.1214	-0.0132	0.1214	0.2090	-0.1084	0.9137	-0.2460	0.2211
t_income	t_momGNG	0.2983	0.1080	0.3077	0.1186	0.1690	2.5937	0.0095	0.0750	0.4932
Snack_avg	FishFlanker_RawScore	0.2439	0.1038	0.2489	0.1104	0.0354	2.2538	0.0242	0.0324	0.4344
Snack_avg	ChildGNGcomp	0.1778	0.1078	0.1797	0.1113	0.0511	1.6142	0.1065	-0.0385	0.3781
Snack_avg	Food_RegLCRC	0.2833	0.1119	0.2913	0.1217	0.2130	2.3935	0.0167	0.0527	0.4852
Snack_avg	FLA_ACC_diffx100	0.0951	0.1122	0.0953	0.1132	0.0832	0.8423	0.3996	-0.1258	0.3070
Snack_avg	t_momGNG	0.0944	0.1138	0.0947	0.1148	0.1104	0.8248	0.4095	-0.1296	0.3094
FishFlanker_RawScore	ChildGNGcomp	0.5039	0.1015	0.5546	0.1361	0.3825	4.0759	0.0000	0.2802	0.6758
FishFlanker_RawScore	Food_RegLCRC	0.2566	0.1143	0.2624	0.1223	0.2219	2.1450	0.0320	0.0226	0.4639
FishFlanker_RawScore	FLA_ACC_diffx100	0.1632	0.1084	0.1647	0.1114	0.0523	1.4789	0.1392	-0.0535	0.3653
FishFlanker_RawScore	t_momGNG	0.2590	0.1044	0.2650	0.1119	0.0612	2.3684	0.0179	0.0457	0.4497
ChildGNGcomp	Food_RegLCRC	-0.0014	0.1257	-0.0014	0.1257	0.2660	-0.0113	0.9910	-0.2428	0.2402
ChildGNGcomp	FLA_ACC_diffx100	0.0359	0.1093	0.0359	0.1095	0.0187	0.3279	0.7430	-0.1768	0.2454

variable1	variable2	r	rse	fisher_r	fisher_rse	fmi	t	p	lower95	upper95
ChildGNGcomp	t_momGNG	-0.0374	0.1132	-0.0374	0.1133	0.0857	-0.3303	0.7412	-0.2539	0.1826
Food_RegLCRC	FLA_ACC_diffx100	0.0902	0.1121	0.0905	0.1130	0.0802	0.8004	0.4235	-0.1303	0.3022
Food_RegLCRC	t_momGNG	0.0917	0.1117	0.0920	0.1127	0.0744	0.8165	0.4142	-0.1281	0.3030
FLA_ACC_diffx100	t_momGNG	0.1352	0.1124	0.1360	0.1145	0.1043	1.1880	0.2348	-0.0881	0.3455
t_income	matYrsEd	0.5503	0.0761	0.6189	0.1092	0.0129	5.6687	0.0000	0.3841	0.6820
Snack_avg	matYrsEd	0.1523	0.1059	0.1535	0.1085	0.0000	1.4148	0.1571	-0.0591	0.3505
FishFlanker_RawScore	matYrsEd	0.2717	0.1048	0.2787	0.1132	0.0839	2.4616	0.0138	0.0567	0.4627
ChildGNGcomp	matYrsEd	0.2570	0.1046	0.2629	0.1120	0.0628	2.3476	0.0189	0.0434	0.4482
Food_RegLCRC	matYrsEd	0.1212	0.1173	0.1218	0.1191	0.1754	1.0232	0.3062	-0.1111	0.3410
FLA_ACC_diffx100	matYrsEd	0.2573	0.1025	0.2633	0.1098	0.0247	2.3971	0.0165	0.0480	0.4451
t_momGNG	matYrsEd	0.2678	0.1042	0.2745	0.1123	0.0678	2.4445	0.0145	0.0544	0.4578
Snack_avg	t_income	0.2036	0.1049	0.2065	0.1095	0.0185	1.8863	0.0593	-0.0081	0.3979
FishFlanker_RawScore	t_income	0.3966	0.0948	0.4196	0.1125	0.0712	3.7302	0.0002	0.1965	0.5649
ChildGNGcomp	t_income	0.4101	0.0917	0.4357	0.1102	0.0318	3.9528	0.0001	0.2162	0.5728
Food_RegLCRC	t_income	0.1204	0.1208	0.1210	0.1226	0.2254	0.9871	0.3236	-0.1187	0.3464
FLA_ACC_diffx100	t_income	-0.0132	0.1214	-0.0132	0.1214	0.2090	-0.1084	0.9137	-0.2460	0.2211
t_momGNG	t_income	0.2983	0.1080	0.3077	0.1186	0.1690	2.5937	0.0095	0.0750	0.4932
FishFlanker_RawScore	Snack_avg	0.2439	0.1038	0.2489	0.1104	0.0354	2.2538	0.0242	0.0324	0.4344
ChildGNGcomp	Snack_avg	0.1778	0.1078	0.1797	0.1113	0.0511	1.6142	0.1065	-0.0385	0.3781
Food_RegLCRC	Snack_avg	0.2833	0.1119	0.2913	0.1217	0.2130	2.3935	0.0167	0.0527	0.4852
FLA_ACC_diffx100	Snack_avg	0.0951	0.1122	0.0953	0.1132	0.0832	0.8423	0.3996	-0.1258	0.3070
t_momGNG	Snack_avg	0.0944	0.1138	0.0947	0.1148	0.1104	0.8248	0.4095	-0.1296	0.3094
ChildGNGcomp	FishFlanker_RawScore	0.5039	0.1015	0.5546	0.1361	0.3825	4.0759	0.0000	0.2802	0.6758
Food_RegLCRC	FishFlanker_RawScore	0.2566	0.1143	0.2624	0.1223	0.2219	2.1450	0.0320	0.0226	0.4639
FLA_ACC_diffx100	FishFlanker_RawScore	0.1632	0.1084	0.1647	0.1114	0.0523	1.4789	0.1392	-0.0535	0.3653
t_momGNG	FishFlanker_RawScore	0.2590	0.1044	0.2650	0.1119	0.0612	2.3684	0.0179	0.0457	0.4497
Food_RegLCRC	ChildGNGcomp	-0.0014	0.1257	-0.0014	0.1257	0.2660	-0.0113	0.9910	-0.2428	0.2402
FLA_ACC_diffx100	ChildGNGcomp	0.0359	0.1093	0.0359	0.1095	0.0187	0.3279	0.7430	-0.1768	0.2454
t_momGNG	ChildGNGcomp	-0.0374	0.1132	-0.0374	0.1133	0.0857	-0.3303	0.7412	-0.2539	0.1826
FLA_ACC_diffx100	Food_RegLCRC	0.0902	0.1121	0.0905	0.1130	0.0802	0.8004	0.4235	-0.1303	0.3022
t_momGNG	Food_RegLCRC	0.0917	0.1117	0.0920	0.1127	0.0744	0.8165	0.4142	-0.1281	0.3030
t_momGNG	FLA_ACC_diffx100	0.1352	0.1124	0.1360	0.1145	0.1043	1.1880	0.2348	-0.0881	0.3455

Note: these are exactly the same correlations as with the raw data.

Hypothesis 1

Testing associations between mom and child SR controlling for child age and sex.

```r
# hot SR
hotSR <- with(data = impData, exp = lm(Snack_avg ~ Food_RegLCRC + sex + childAge))
summary(pool(hotSR))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	0.1790	0.9575	0.1869	81.30	0.8522
Food_RegLCRC	0.5266	0.2239	2.3513	48.61	0.0228
sex	0.4402	0.3480	1.2650	79.37	0.2096
childAge	0.1765	0.2350	0.7509	77.29	0.4550

```r
pool.r.squared(hotSR)
```

```
##        est   lo 95  hi 95 fmi
## R^2 0.1056 0.01057 0.2665 NaN
```

```r
# GNG
GNG <- with(data = impData, exp = lm(ChildGNGcomp ~ t_momGNG + sex + childAge))
summary(pool(GNG))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-2.5747	0.5250	-4.9045	79.22	0.0000
t_momGNG	-0.3843	0.4498	-0.8544	63.00	0.3961
sex	0.1290	0.1685	0.7657	78.38	0.4461
childAge	0.6716	0.1119	6.0032	76.88	0.0000

```r
pool.r.squared(GNG)
```

```
##        est lo 95  hi 95 fmi
## R^2 0.3148 0.157 0.4773 NaN
```

```r
# Flanker
FLA <- with(data = impData, exp = lm(FishFlanker_RawScore ~ FLA_ACC_diffx100 + sex + childAge))
summary(pool(FLA))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-19.6306	5.9826	-3.281	77.26	0.0016
FLA_ACC_diffx100	0.1494	0.1326	1.127	71.16	0.2637
sex	2.9987	2.0899	1.435	74.49	0.1555
childAge	9.7773	1.3514	7.235	79.88	0.0000

```r
pool.r.squared(FLA)
```

```
##         est  lo 95  hi 95 fmi
## R^2 0.4144 0.2486 0.5682 NaN
```

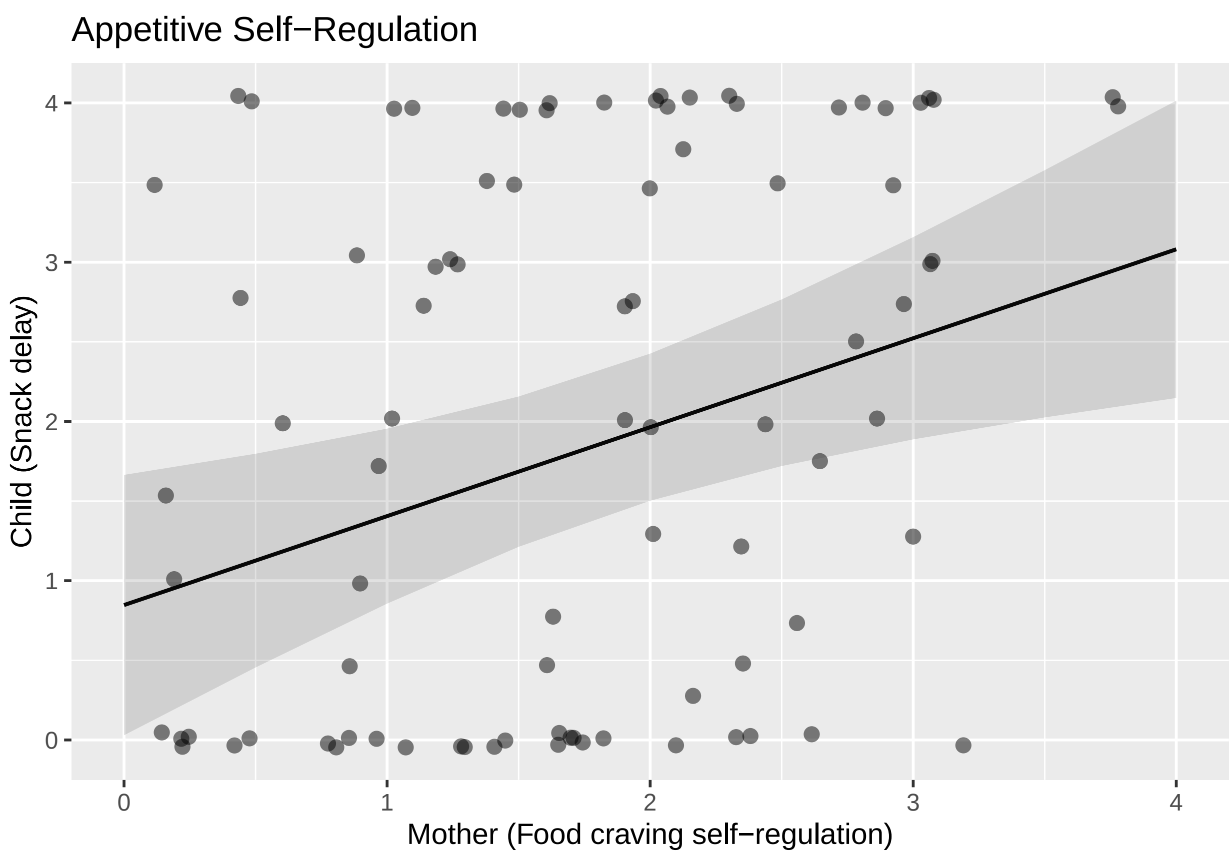
Plot all three models in one figure

```r
# make models with one of the imputed data sets for plotting
hotSR_3 <- lm(Snack_avg ~ Food_RegLCRC + sex + childAge, data = cData3)
GNG_3 <- lm(ChildGNGcomp ~ t_momGNG + sex + childAge, data = cData3)
FLA_3 <- lm(FishFlanker_RawScore ~ FLA_ACC_diffx100 + sex + childAge, data = cData3)


# make individual plots
as <- plot_model(hotSR_3, terms = "Food_RegLCRC",
                type = "eff",
                title = "Appetitive Self-Regulation",
                se = TRUE, show.data = TRUE, jitter = .05,
                axis.title = c("Mother (Food craving self-regulation)", "Child (Snack delay)"))
```

```
## Package ‘effects‘ is not available, but needed for ‘ggeffect()‘. Either install package ‘effects‘, o
```

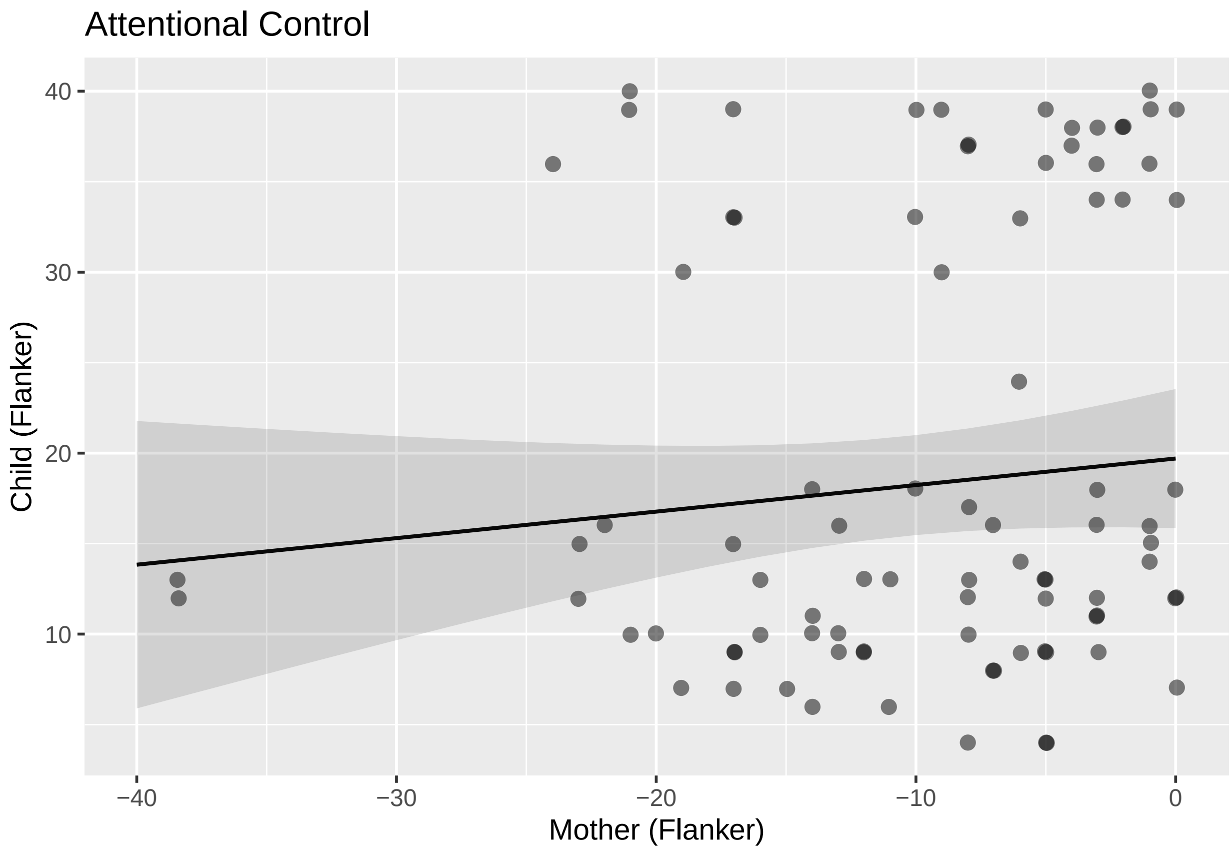
```r
as
```



```
ac <- plot_model(FLA_3, terms = "FLA_ACC_diffx100",
                 type = "eff",
                 title = "Attentional Control",
                 se = TRUE, show.data = TRUE, jitter = .05,
                 axis.title = c("Mother (Flanker)", "Child (Flanker)"))
```

```
## Package ‘effects‘ is not available, but needed for ‘ggeffect()‘. Either install package ‘effects‘, o
```

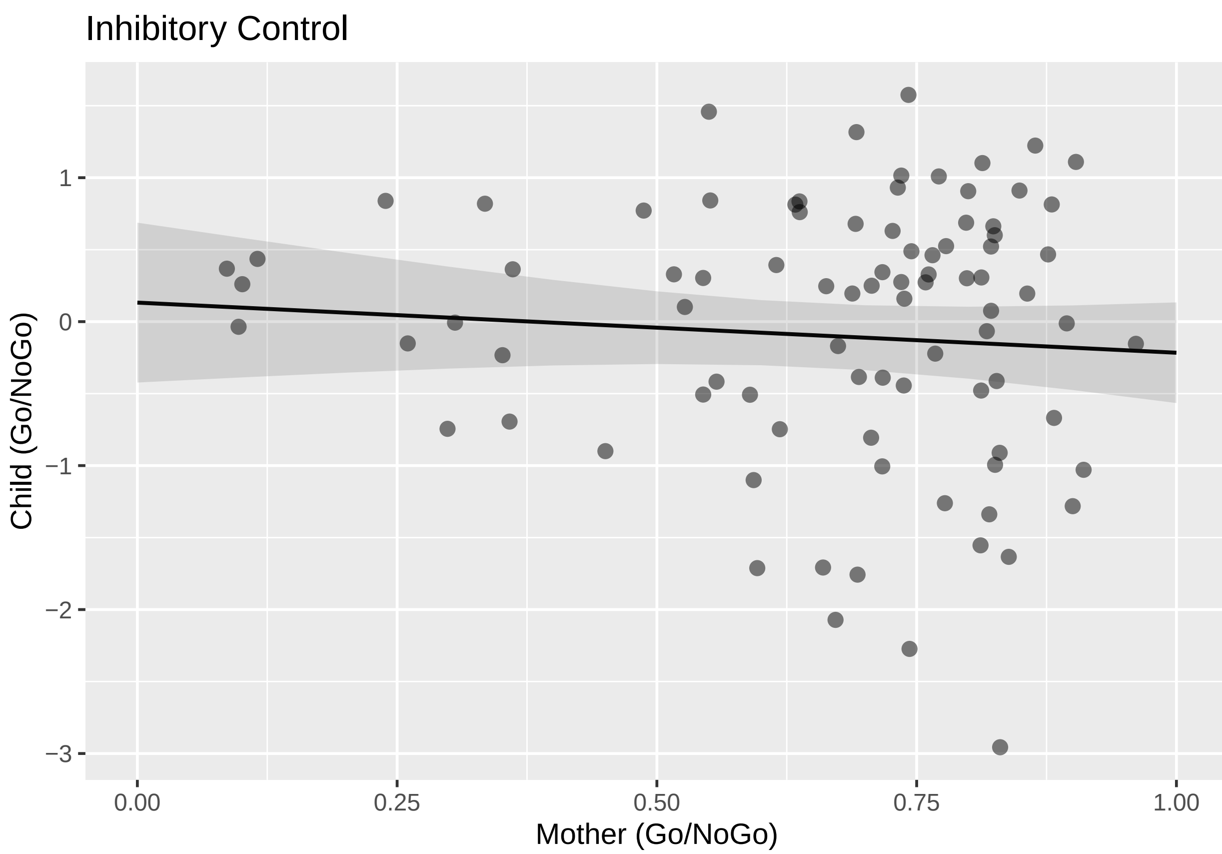
```
ac
```



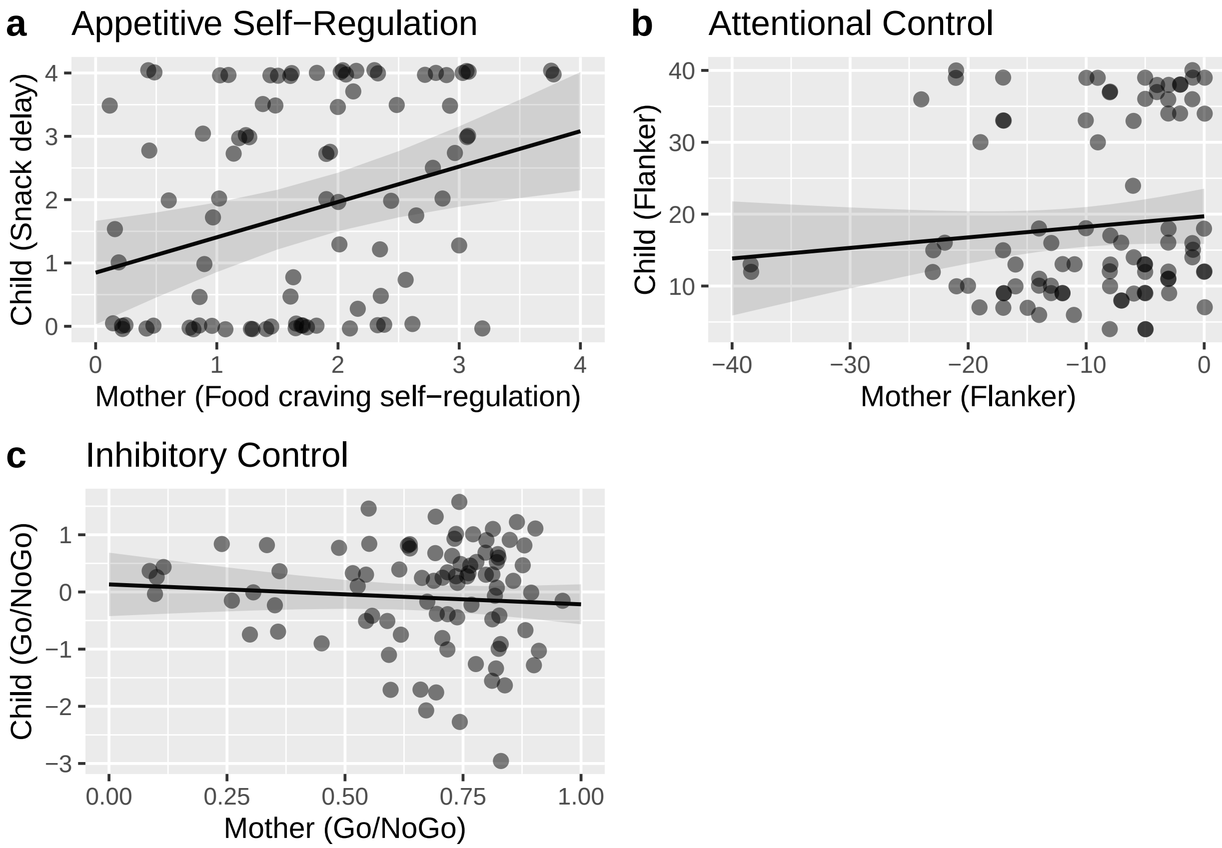

```
ic <- plot_model(GNG_3, terms = "t_momGNG",
                 type = "eff",
                 title = "Inhibitory Control",
                 se = TRUE, show.data = TRUE, jitter = .05,
                 axis.title = c("Mother (Go/NoGo)", "Child (Go/NoGo)"))
```

```
## Package ‘effects‘ is not available, but needed for ‘ggeffect()‘. Either install package ‘effects‘, o
```

```
ic
```




```r
# put all on one page
fig1 <- ggarrange(as, ac, ic,
          labels = c("a", "b", "c"),
          ncol = 2, nrow = 2)
fig1
```



Compare models

```r
# use multiply imputed data set 3 for plotting
# z-score all variables since raw regression parameters are in the units of the DV
cData3$Mom_appSR <- c(scale(cData3$Food_RegLCRC, center=TRUE, scale=TRUE))
cData3$Child_appSR <- c(scale(cData3$Snack_avg, center=TRUE, scale=TRUE))
cData3$Mom_GNG <- c(scale(cData3$t_momGNG, center=TRUE, scale=TRUE))
cData3$Child_GNG <- c(scale(cData3$ChildGNGcomp, center=TRUE, scale=TRUE))
cData3$Mom_FLA <- c(scale(cData3$FLA_ACC_diffx100, center=TRUE, scale=TRUE))
cData3$Child_FLA <- c(scale(cData3$FishFlanker_RawScore, center=TRUE, scale=TRUE))

hotSRz <- lm(Child_appSR ~ Mom_appSR + sex + childAge, data = cData3)
GNGz <- lm(Child_GNG ~ Mom_GNG + sex + childAge, data = cData3)
FLAz <- lm(Child_FLA ~ Mom_FLA + sex + childAge, data = cData3)


# create CIs around the regression parameters (with robust SEs)
summ(hotSRz, robust = "HC1", confint = TRUE, digits = 3)
```

Observations	88
Dependent variable	Child_appSR
Type	OLS linear regression

F(3,84)	3.812
R^2	0.120
Adj. R^2	0.088

	Est.	2.5%	97.5%	t val.	p
(Intercept)	-0.546	-1.713	0.620	-0.932	0.354
Mom_appSR	0.309	0.123	0.494	3.314	0.001
sex	0.249	-0.159	0.658	1.212	0.229
childAge	0.106	-0.176	0.387	0.746	0.458

Standard errors: Robust, type = HC1

```r
summ(GNGz, robust = "HC1", confint = TRUE, digits = 3)
```

Observations	88
Dependent variable	Child_GNG
Type	OLS linear regression

F(3,84)	13.189
R^2	0.320
Adj. R^2	0.296

	Est.	2.5%	97.5%	t val.	p
(Intercept)	-3.028	-3.982	-2.074	-6.312	0.000
Mom_GNG	-0.079	-0.222	0.064	-1.099	0.275
sex	0.120	-0.240	0.480	0.662	0.510
childAge	0.733	0.513	0.953	6.631	0.000

Standard errors: Robust, type = HC1

```r
summ(FLAz, robust = "HC1", confint = TRUE, digits = 3)
```

Observations	88
Dependent variable	Child_FLA
Type	OLS linear regression

F(3,84)	19.906
R^2	0.416
Adj. R^2	0.395

```r
# create CIs around the regression parameters
confint(hotSRz)
```

```
##                 2.5 % 97.5 %
## (Intercept) -1.6858 0.5929
## Mom_appSR    0.0995 0.5178
```

	Est.	2.5%	97.5%	t val.	p
(Intercept)	-3.392	-4.167	-2.617	-8.703	0.000
Mom_FLA	0.096	-0.059	0.251	1.228	0.223
sex	0.248	-0.084	0.580	1.487	0.141
childAge	0.808	0.606	1.010	7.955	0.000

Standard errors: Robust, type = HC1

```
## sex         -0.1582 0.6564
## childAge    -0.1676 0.3787
```

```r
confint(GNGz)
```

```
##                2.5 %  97.5 %
## (Intercept) -4.0126 -2.0442
## Mom_GNG     -0.2581  0.1002
## sex         -0.2368  0.4765
## childAge     0.4986  0.9682
```

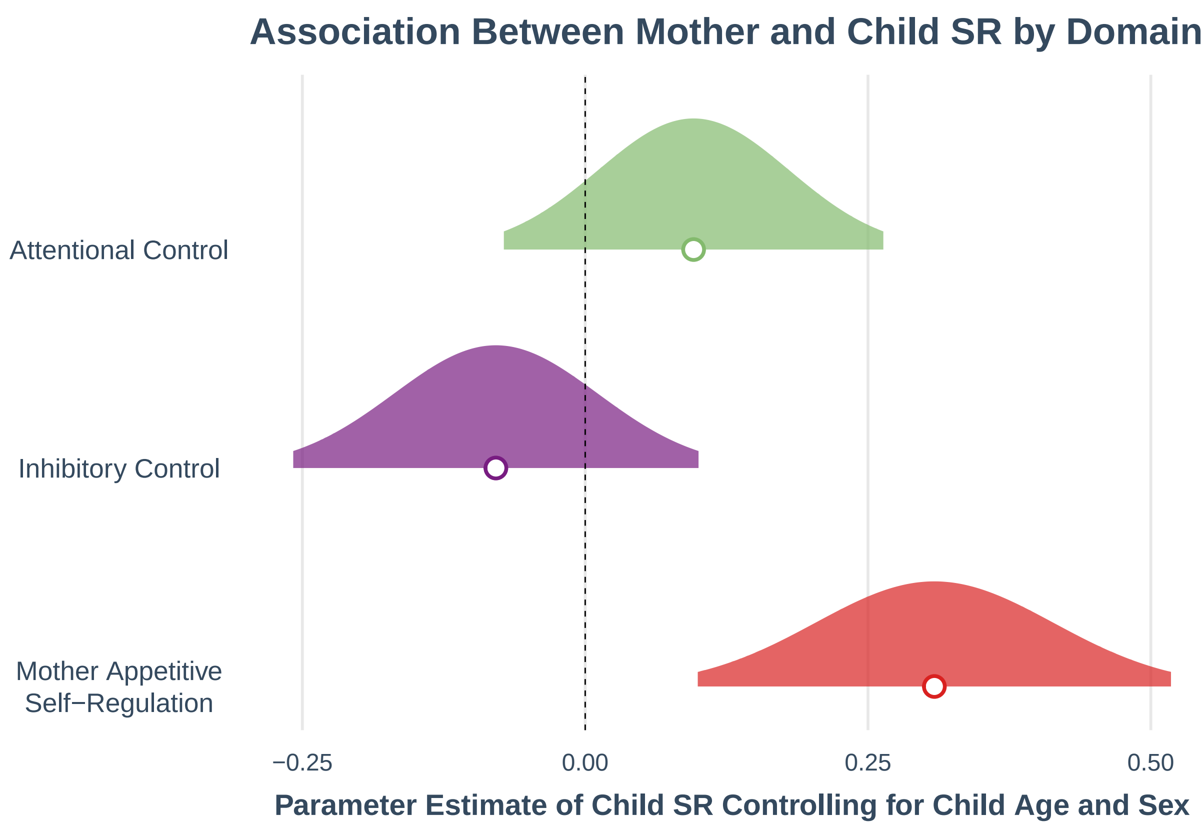
```r
confint(FLAz)
```

```
##                 2.5 %  97.5 %
## (Intercept) -4.30956 -2.4742
## Mom_FLA     -0.07191  0.2635
## sex         -0.08441  0.5808
## childAge     0.58939  1.0265
```

```r
# plot
s <- plot_summs(GNGz, FLAz, hotSRz, ci_level = 0.95, coefs = c("Mother Appetitive\nSelf-Regulation" = "I
```

```
## Loading required namespace: broom.mixed
## Loading required namespace: broom.mixed
## Loading required namespace: broom.mixed
```

```r
s + theme(legend.position = "none") + ggtitle("Association Between Mother and Child SR by Domain") +
  xlab("Parameter Estimate of Child SR Controlling for Child Age and Sex")
```



Explore moderation by SES

```
# moderated by mother education?
hotSR_ed <- with(data = impData, exp = lm(Snack_avg ~ Food_RegLCRC * matYrsEd + sex + childAge))
summary(pool(hotSR_ed))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	3.8610	3.1200	1.238	38.77	0.2233
Food_RegLCRC	-2.1867	1.6174	-1.352	26.25	0.1879
matYrsEd	-0.2569	0.2029	-1.266	35.67	0.2137
sex	0.4374	0.3390	1.290	78.69	0.2007
childAge	0.2351	0.2327	1.010	73.63	0.3156
Food_RegLCRC:matYrsEd	0.1764	0.1030	1.712	28.22	0.0978

```
pool.r.squared(hotSR_ed)
```

```
##         est   lo 95   hi 95 fmi
## R^2 0.1696 0.04733 0.3303 NaN
```

```r
GNG_ed <- with(data = impData, exp = lm(ChildGNGcomp ~ t_momGNG * matYrsEd + sex + childAge))
summary(pool(GNG_ed))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-5.8814	2.1014	-2.7988	69.11	0.0066
t_momGNG	1.5976	2.8558	0.5594	68.93	0.5777
matYrsEd	0.2355	0.1406	1.6751	70.06	0.0984
sex	0.1198	0.1585	0.7559	75.09	0.4521
childAge	0.6957	0.1050	6.6237	74.33	0.0000
t_momGNG:matYrsEd	-0.1637	0.1932	-0.8471	69.26	0.3999

```r
pool.r.squared(GNG_ed)
```

```
##        est  lo 95  hi 95 fmi
## R^2 0.4167 0.2512 0.5698 NaN
```

```r
FLA_ed <- with(data = impData, exp = lm(FishFlanker_RawScore ~ FLA_ACC_diffx100 * matYrsEd + sex + chil
summary(pool(FLA_ed))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-44.8196	11.0060	-4.0723	64.83	0.0001
FLA_ACC_diffx100	-0.1339	0.5551	-0.2413	73.50	0.8100
matYrsEd	1.5249	0.6059	2.5168	56.42	0.0147
sex	2.9706	1.9961	1.4882	71.82	0.1411
childAge	10.0379	1.2783	7.8527	77.89	0.0000
FLA_ACC_diffx100:matYrsEd	0.0118	0.0376	0.3147	71.91	0.7539

```r
pool.r.squared(FLA_ed)
```

```
##        est  lo 95  hi 95 fmi
## R^2 0.4914 0.3292 0.6323 NaN
```

```r
# moderated by family income?
hotSR_inc <- with(data = impData, exp = lm(Snack_avg ~ Food_RegLCRC * t_income + sex + childAge))
summary(pool(hotSR_inc))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	0.4211	1.5488	0.2719	72.09	0.7865
Food_RegLCRC	0.1136	0.7183	0.1582	65.09	0.8748
t_income	0.0011	0.0096	0.1116	69.26	0.9114
sex	0.4789	0.3467	1.3810	77.64	0.1712
childAge	0.0845	0.2438	0.3466	75.53	0.7299
Food_RegLCRC:t_income	0.0027	0.0046	0.5937	71.62	0.5546

```r
pool.r.squared(hotSR_inc)
```

```
##        est   lo 95  hi 95 fmi
## R^2 0.1369 0.02561 0.3003 NaN
```

```r
GNG_inc <- with(data = impData, exp = lm(ChildGNGcomp ~ t_momGNG * t_income + sex + childAge))
summary(pool(GNG_inc))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-2.8955	1.1357	-2.5496	39.78	0.0147
t_momGNG	-0.7484	1.5041	-0.4976	32.97	0.6221
t_income	0.0073	0.0079	0.9249	40.17	0.3605
sex	0.1768	0.1606	1.1005	74.82	0.2746
childAge	0.5648	0.1105	5.1093	74.23	0.0000
t_momGNG:t_income	-0.0005	0.0110	-0.0494	36.81	0.9608

```r
pool.r.squared(GNG_inc)
```

```
##        est  lo 95  hi 95 fmi
## R^2 0.4086 0.2435 0.5627 NaN
```

```r
FLA_inc <- with(data = impData, exp = lm(FishFlanker_RawScore ~ FLA_ACC_diffx100 * t_income + sex + chil
summary(pool(FLA_inc))
```

term	estimate	std.error	statistic	df	p.value
(Intercept)	-26.7695	7.2074	-3.7142	77.73	0.0004
FLA_ACC_diffx100	-0.0778	0.4404	-0.1766	71.45	0.8603
t_income	0.0836	0.0381	2.1909	67.54	0.0319
sex	3.5231	2.0647	1.7064	69.40	0.0924
childAge	8.5907	1.3720	6.2612	75.77	0.0000
FLA_ACC_diffx100:t_income	0.0017	0.0030	0.5664	67.88	0.5730

```r
pool.r.squared(FLA_inc)
```

```
##        est  lo 95  hi 95 fmi
## R^2 0.4728 0.3097 0.6167 NaN
```