Discrepancies in Self- and Informant-Reports of Personality Pathology: Examining the DSM-5 Section III Trait Model

Loading required packages

```
library(psych)
library(car)
library(interactions) # Package for probing significant interactions
library(dplyr)
library(foreign)
library(msm)
```

Creating the GPPC (General Personality Pathology Composite)

```
## Converting each FFM PD score into a z-score

pp.full$anti.siffm.count.z = scale(pp.full$anti.siffm.count)
pp.full$anti.neos.count.z = scale(pp.full$anti.neos.count)
pp.full$anti.neoo.count.z = scale(pp.full$anti.neoo.count)
pp.full$avoid.siffm.z = scale(pp.full$avoid.siffm.count)
pp.full$avoid.neos.z = scale(pp.full$avoid.neos.count)
pp.full$avoid.neoo.z = scale(pp.full$avoid.neoo.count)
pp.full$b.siffm.z = scale(pp.full$bord.siffm.count)
pp.full$b.neos.z = scale(pp.full$bord.neos.count)
pp.full$b.neoo.z = scale(pp.full$bord.neoo.count)
pp.full$nar.siffm.z = scale(pp.full$nar.siffm.count)
pp.full$nar.neos.z = scale(pp.full$nar.neos.count)
pp.full$nar.neoo.z = scale(pp.full$nar.neoo.count)
pp.full$obs.siffm.z = scale(pp.full$obs.siffm.count)
pp.full$obs.neos.z = scale(pp.full$obs.neos.count)
pp.full$obs.neoo.z = scale(pp.full$obs.neoo.count)
pp.full$schiz.siffm.z = scale(pp.full$schiz.siffm.count)
pp.full$schiz.neos.z = scale(pp.full$schiz.neos.count)
pp.full$schiz.neoo.z = scale(pp.full$schiz.neoo.count)


## Summing the z-scores

pp.full$gen.z = (pp.full$anti.siffm.count.z + pp.full$anti.neos.count.z + pp.full$anti.neoo.count.z +
                   pp.full$avoid.siffm.z + pp.full$avoid.neos.z + pp.full$avoid.neoo.z +
                   pp.full$b.siffm.z + pp.full$b.neos.z + pp.full$b.neoo.z +
                   pp.full$nar.siffm.z + pp.full$nar.neos.z + pp.full$nar.neoo.z +
                   pp.full$obs.siffm.z + pp.full$obs.neos.z + pp.full$obs.neoo.z +
                   pp.full$schiz.siffm.z + pp.full$schiz.neos.z + pp.full$schiz.neoo.z)

## Scaling the summed z-score (mean = 0, SD = 1)

pp.full$gen.z = scale(pp.full$gen.z)
```

Supplemental Correlation Tables

```
#### Table S3 (MTMM between PID-5-SRF and PID-5-IRF domain scores)

round((corr.test(pp.cor1, method = "spearman")$r), 2)
```

```
##           NEGAFF.s ANTAG.s DISINH.s PSYCHOT.s DETACH.s NEGAFF.i ANTAG.i
## NEGAFF.s      1.00    0.54     0.80      0.69     0.66     0.45    0.22
## ANTAG.s       0.54    1.00     0.64      0.67     0.42     0.21    0.27
## DISINH.s      0.80    0.64     1.00      0.71     0.65     0.41    0.23
## PSYCHOT.s     0.69    0.67     0.71      1.00     0.59     0.20    0.14
## DETACH.s      0.66    0.42     0.65      0.59     1.00     0.28    0.14
## NEGAFF.i      0.45    0.21     0.41      0.20     0.28     1.00    0.61
## ANTAG.i       0.22    0.27     0.23      0.14     0.14     0.61    1.00
## DISINH.i      0.44    0.41     0.57      0.34     0.28     0.69    0.63
## PSYCHOT.i     0.35    0.33     0.40      0.31     0.23     0.68    0.63
## DETACH.i      0.29    0.19     0.33      0.20     0.38     0.56    0.47
##           DISINH.i PSYCHOT.i DETACH.i
## NEGAFF.s      0.44      0.35     0.29
## ANTAG.s       0.41      0.33     0.19
## DISINH.s      0.57      0.40     0.33
## PSYCHOT.s     0.34      0.31     0.20
## DETACH.s      0.28      0.23     0.38
## NEGAFF.i      0.69      0.68     0.56
## ANTAG.i       0.63      0.63     0.47
## DISINH.i      1.00      0.74     0.50
## PSYCHOT.i     0.74      1.00     0.46
## DETACH.i      0.50      0.46     1.00
```

```
#### Table S4 (Convergent correlations between FFM PD scores)

# Antisocial PD

anti.scores = pp.full[,c("anti.neos.count", "anti.neoo.count", "anti.siffm.count")]
round((corr.test(anti.scores, method = "spearman")$r), 2)
```

```
##                  anti.neos.count anti.neoo.count anti.siffm.count
## anti.neos.count             1.00            0.48             0.62
## anti.neoo.count             0.48            1.00             0.37
## anti.siffm.count            0.62            0.37             1.00
```

```
## Avoidant PD

avoid.scores = pp.full[,c("avoid.neos.count", "avoid.neoo.count", "avoid.siffm.count")]
round((corr.test(avoid.scores, method = "spearman")$r), 2)
```

```
##                   avoid.neos.count avoid.neoo.count avoid.siffm.count
## avoid.neos.count              1.00             0.48              0.72
## avoid.neoo.count              0.48             1.00              0.45
## avoid.siffm.count             0.72             0.45              1.00
```

```
## BPD

b.scores = pp.full[,c("bord.neos.count", "bord.neoo.count", "bord.siffm.count")]
round((corr.test(b.scores, method = "spearman")$r), 2)
```

```
##                  bord.neos.count bord.neoo.count bord.siffm.count
## bord.neos.count             1.00            0.45             0.63
## bord.neoo.count             0.45            1.00             0.40
## bord.siffm.count            0.63            0.40             1.00
```

```
## Narcissistic PD

nar.scores = pp.full[,c("nar.neos.count", "nar.neoo.count", "nar.siffm.count")]
round((corr.test(nar.scores, method = "spearman")$r), 2)
```

```
##                 nar.neos.count nar.neoo.count nar.siffm.count
## nar.neos.count            1.00           0.48            0.62
## nar.neoo.count            0.48           1.00            0.34
## nar.siffm.count           0.62           0.34            1.00
```

```r
## Obsessive-Compulsive PD

obs.scores = pp.full[,c("obs.neos.count", "obs.neoo.count", "obs.siffm.count")]
round((corr.test(obs.scores, method = "spearman")$r), 2)
```

```
##                 obs.neos.count obs.neoo.count obs.siffm.count
## obs.neos.count            1.00           0.49            0.65
## obs.neoo.count            0.49           1.00            0.46
## obs.siffm.count           0.65           0.46            1.00
```

```r
## Schizotypal PD

schiz.scores = pp.full[,c("schiz.neos.count", "schiz.neoo.count", "schiz.siffm.count")]
round((corr.test(schiz.scores, method = "spearman")$r), 2)
```

```
##                   schiz.neos.count schiz.neoo.count schiz.siffm.count
## schiz.neos.count              1.00             0.40              0.64
## schiz.neoo.count              0.40             1.00              0.39
## schiz.siffm.count             0.64             0.39              1.00
```

```r
##### Table S5 (MTMM between PID-5-SRF and PID-5-IRF PD scores)

round((corr.test(pp.cor3, method = "spearman")$r), 2)
```

```
##              anti.pid.s avoid.pid.s bord.pid.s nar.pid.s obs.pid.s
## anti.pid.s         1.00        0.61       0.85      0.69      0.66
## avoid.pid.s        0.61        1.00       0.79      0.41      0.83
## bord.pid.s         0.85        0.79       1.00      0.61      0.75
## nar.pid.s          0.69        0.41       0.61      1.00      0.59
## obs.pid.s          0.66        0.83       0.75      0.59      1.00
## schiz.pid.s        0.74        0.81       0.78      0.58      0.84
## anti.pid.i         0.41        0.25       0.39      0.29      0.21
## avoid.pid.i        0.33        0.43       0.40      0.12      0.33
## bord.pid.i         0.41        0.36       0.49      0.25      0.27
## nar.pid.i          0.25        0.14       0.26      0.29      0.13
## obs.pid.i          0.33        0.32       0.34      0.21      0.32
## schiz.pid.i        0.37        0.34       0.36      0.21      0.27
##              schiz.pid.s anti.pid.i avoid.pid.i bord.pid.i nar.pid.i
## anti.pid.s          0.74       0.41        0.33       0.41      0.25
## avoid.pid.s         0.81       0.25        0.43       0.36      0.14
## bord.pid.s          0.78       0.39        0.40       0.49      0.26
## nar.pid.s           0.58       0.29        0.12       0.25      0.29
## obs.pid.s           0.84       0.21        0.33       0.27      0.13
## schiz.pid.s         1.00       0.25        0.30       0.29      0.14
## anti.pid.i          0.25       1.00        0.60       0.86      0.74
## avoid.pid.i         0.30       0.60        1.00       0.75      0.42
## bord.pid.i          0.29       0.86        0.75       1.00      0.64
## nar.pid.i           0.14       0.74        0.42       0.64      1.00
## obs.pid.i           0.25       0.64        0.80       0.65      0.52
## schiz.pid.i         0.30       0.75        0.82       0.78      0.60
##              obs.pid.i schiz.pid.i
## anti.pid.s        0.33        0.37
## avoid.pid.s       0.32        0.34
## bord.pid.s        0.34        0.36
## nar.pid.s         0.21        0.21
## obs.pid.s         0.32        0.27
## schiz.pid.s       0.25        0.30
## anti.pid.i        0.64        0.75
## avoid.pid.i       0.80        0.82
## bord.pid.i        0.65        0.78
## nar.pid.i         0.52        0.60
## obs.pid.i         1.00        0.81
## schiz.pid.i       0.81        1.00
```

```r
##### Table S6 (Correlations between PID-5 domains and FFM PD/GPPC scores)

pp.s5 = pp.full[,c("anti.pid.s", "anti.pid.i",
                   "anti.siffm.count", "anti.neos.count", "anti.neoo.count", "avoid.pid.s", "avoid.pid.i",

                   "avoid.siffm.count", "avoid.neos.count", "avoid.neoo.count", "bord.pid.s", "bord.pid.i"
,
                   "bord.siffm.count", "bord.neos.count", "bord.neoo.count", "nar.pid.s", "nar.pid.i",
                   "nar.siffm.count", "nar.neos.count", "nar.neoo.count", "obs.pid.s", "obs.pid.i",
                   "obs.siffm.count", "obs.neos.count", "obs.neoo.count", "schiz.pid.s", "schiz.pid.i",
                   "schiz.siffm.count", "schiz.neos.count", "schiz.neoo.count", "gen.z", "NEGAFF.s", "NEGA
FF.i",
                   "ANTAG.s", "ANTAG.i", "DISINH.s", "DISINH.i", "PSYCHOT.s", "PSYCHOT.i", "DETACH.s", "DE
TACH.i")]

## Correlations with PID-5-SRF domains

round((corr.test(pp.s5[,c(3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19, 20, 23, 24, 25,
                         28, 29, 30, 31)], pp.s5[,c(32, 34, 36, 38, 40)],
               method = "spearman")$r), 2)
```

```
##                    NEGAFF.s ANTAG.s DISINH.s PSYCHOT.s DETACH.s
## anti.siffm.count      -0.03    0.31     0.08      0.10    -0.10
## anti.neos.count        0.14    0.50     0.27      0.31     0.09
## anti.neoo.count        0.07    0.25     0.11      0.16     0.05
## avoid.siffm.count      0.31    0.02     0.25      0.13     0.46
## avoid.neos.count       0.49    0.03     0.44      0.25     0.65
## avoid.neoo.count       0.24   -0.02     0.24      0.04     0.35
## bord.siffm.count       0.55    0.30     0.51      0.37     0.38
## bord.neos.count        0.70    0.31     0.59      0.47     0.47
## bord.neoo.count        0.37    0.04     0.32      0.14     0.25
## nar.siffm.count       -0.21    0.23    -0.12      0.00    -0.11
## nar.neos.count         0.14    0.53     0.26      0.32     0.15
## nar.neoo.count         0.06    0.25     0.08      0.15     0.11
## obs.siffm.count       -0.18   -0.19    -0.33     -0.20    -0.04
## obs.neos.count        -0.25   -0.26    -0.49     -0.32    -0.18
## obs.neoo.count        -0.22   -0.28    -0.41     -0.29    -0.08
## schiz.siffm.count      0.29    0.13     0.31      0.23     0.52
## schiz.neos.count       0.50    0.24     0.54      0.44     0.66
## schiz.neoo.count       0.25    0.09     0.27      0.16     0.40
## gen.z                  0.44    0.32     0.40      0.34     0.56
```

```r
## Correlations with PID-5-IRF domains

round((corr.test(pp.s5[,c(3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19, 20, 23, 24, 25,
                         28, 29, 30, 31)], pp.s5[,c(33, 35, 37, 39, 41)],
               method = "spearman")$r), 2)
```

```
##                    NEGAFF.i ANTAG.i DISINH.i PSYCHOT.i DETACH.i
## anti.siffm.count       0.05    0.21     0.26      0.22    -0.05
## anti.neos.count        0.18    0.35     0.36      0.33     0.14
## anti.neoo.count        0.33    0.68     0.47      0.41     0.20
## avoid.siffm.count      0.24   -0.01     0.05      0.05     0.32
## avoid.neos.count       0.28    0.03     0.16      0.14     0.34
## avoid.neoo.count       0.38   -0.04     0.13      0.09     0.56
## bord.siffm.count       0.44    0.31     0.42      0.36     0.20
## bord.neos.count        0.44    0.25     0.42      0.35     0.31
## bord.neoo.count        0.75    0.43     0.49      0.41     0.39
## nar.siffm.count       -0.08    0.14     0.09      0.09    -0.04
## nar.neos.count         0.16    0.33     0.35      0.30     0.16
## nar.neoo.count         0.31    0.70     0.40      0.38     0.30
## obs.siffm.count       -0.10   -0.07    -0.32     -0.17     0.02
## obs.neos.count        -0.19   -0.06    -0.36     -0.22    -0.11
## obs.neoo.count        -0.35   -0.32    -0.71     -0.45    -0.11
## schiz.siffm.count      0.21    0.08     0.17      0.14     0.35
## schiz.neos.count       0.28    0.06     0.29      0.26     0.34
## schiz.neoo.count       0.46    0.19     0.31      0.29     0.65
## gen.z                  0.54    0.45     0.41      0.40     0.55
```

```r
###### Table S7 (Correlations between PID-5 domains and SIFFM domains and facets)


pp.s6 = pp.full[,c("NEGAFF.s", "NEGAFF.i",
                     "ANTAG.s", "ANTAG.i", "DISINH.s", "DISINH.i", "PSYCHOT.s", "PSYCHOT.i", "DETACH.s", "D
ETACH.i",
                     "neu", "ext", "opn", "agr", "cncs",
                     "n1", "n2", "n3", "n4", "n5", "n6", "e1", "e2", "e3", "e4", "e5", "e6",
                     "o1", "o2", "o3", "o4", "o5", "o6", "a1", "a2", "a3", "a4", "a5", "a6",
                     "c1", "c2",
                     "c3", "c4", "c5", "c6")]

## Correlations with PID-5-SRF domains

round((corr.test(pp.s6[,c(11:45)], pp.s6[,c(1, 3, 5, 7, 9)], method = "spearman")$r), 2)
```

```
##      NEGAFF.s ANTAG.s DISINH.s PSYCHOT.s DETACH.s
## neu      0.63    0.31     0.58      0.40     0.51
## ext     -0.08    0.05    -0.08     -0.04    -0.41
## opn      0.11    0.07     0.10      0.20    -0.01
## agr      0.13   -0.25     0.05     -0.03    -0.03
## cncs    -0.22   -0.17    -0.37     -0.15    -0.18
## n1       0.60    0.25     0.50      0.32     0.43
## n2       0.41    0.29     0.31      0.30     0.32
## n3       0.48    0.15     0.40      0.30     0.43
## n4       0.39    0.18     0.38      0.25     0.40
## n5       0.43    0.32     0.50      0.32     0.28
## n6       0.52    0.18     0.44      0.26     0.41
## e1       0.11    0.04     0.05      0.05    -0.26
## e2      -0.08   -0.08    -0.12     -0.15    -0.33
## e3      -0.12    0.02    -0.17     -0.07    -0.21
## e4      -0.18   -0.06    -0.17     -0.06    -0.38
## e5       0.08    0.21     0.13      0.12    -0.22
## e6      -0.02   -0.02    -0.01     -0.01    -0.24
## o1       0.36    0.32     0.36      0.37     0.20
## o2      -0.08   -0.07    -0.05      0.00    -0.15
## o3       0.42    0.07     0.32      0.23     0.18
## o4      -0.14   -0.01    -0.08     -0.02    -0.19
## o5       0.04    0.06     0.00      0.19     0.11
## o6      -0.09   -0.05    -0.08      0.01    -0.13
## a1      -0.14   -0.29    -0.17     -0.21    -0.27
## a2      -0.01   -0.24    -0.13     -0.05    -0.05
## a3       0.01   -0.21    -0.08     -0.05    -0.08
## a4       0.09   -0.09     0.15      0.02     0.04
## a5       0.21   -0.13     0.18      0.01     0.24
## a6       0.25   -0.02     0.17      0.16     0.03
## c1      -0.18   -0.15    -0.32     -0.13    -0.12
## c2       0.00    0.06    -0.08      0.00    -0.02
## c3      -0.13   -0.13    -0.22     -0.08    -0.09
## c4      -0.11   -0.07    -0.16     -0.04    -0.09
## c5      -0.32   -0.22    -0.40     -0.26    -0.27
## c6      -0.21   -0.18    -0.29     -0.15    -0.08
```

```r
## Correlations with PID-5-IRF domains
round((corr.test(pp.s6[,c(11:45)], pp.s6[,c(2, 4, 6, 8, 10)], method = "spearman")$r), 2)
```

```
##      NEGAFF.i ANTAG.i DISINH.i PSYCHOT.i DETACH.i
## neu      0.47    0.31     0.42      0.37     0.32
## ext     -0.12    0.09     0.06      0.05    -0.29
## opn     -0.06    0.04     0.09      0.10    -0.14
## agr     -0.01   -0.10    -0.07     -0.09    -0.10
## cncs    -0.19   -0.03    -0.31     -0.15    -0.17
## n1       0.43    0.30     0.38      0.35     0.29
## n2       0.29    0.21     0.28      0.21     0.20
## n3       0.40    0.20     0.28      0.27     0.26
## n4       0.30    0.19     0.26      0.21     0.28
## n5       0.34    0.28     0.44      0.35     0.09
## n6       0.38    0.20     0.32      0.23     0.23
## e1       0.01    0.08     0.07      0.05    -0.22
## e2      -0.11   -0.03    -0.01      0.00    -0.21
## e3      -0.16    0.06     0.00     -0.08    -0.18
## e4      -0.12    0.04    -0.04      0.05    -0.22
## e5       0.07    0.20     0.26      0.23    -0.07
## e6      -0.12    0.00     0.01     -0.09    -0.31
## o1       0.15    0.16     0.28      0.25     0.09
## o2      -0.05   -0.02    -0.02      0.04    -0.20
## o3       0.24    0.10     0.15      0.11     0.11
## o4      -0.12    0.07     0.03      0.11    -0.18
## o5      -0.20   -0.07    -0.06     -0.06    -0.16
## o6      -0.20   -0.11    -0.06     -0.11    -0.18
## a1      -0.10   -0.15    -0.12     -0.10    -0.16
## a2      -0.07   -0.08    -0.18     -0.11    -0.13
## a3      -0.04   -0.03    -0.08     -0.06    -0.12
## a4       0.00   -0.14    -0.02     -0.10     0.00
## a5       0.07   -0.09     0.03      0.00     0.09
## a6       0.10    0.03     0.05      0.01     0.01
## c1      -0.21   -0.14    -0.28     -0.19    -0.22
## c2      -0.02    0.11    -0.08      0.00    -0.09
## c3      -0.06    0.00    -0.22     -0.12     0.00
## c4      -0.07    0.05    -0.13     -0.04    -0.09
## c5      -0.26   -0.08    -0.33     -0.23    -0.15
## c6      -0.21   -0.13    -0.27     -0.12    -0.04
```

```
##### Table S8 (Correlations between PID-5 PD scores and FFM PD/GPPC scores)

## Correlations with PID-5-SRF scores

round((corr.test(pp.s5[,c(3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19, 20, 23, 24, 25, 28, 29, 30, 31)],
                pp.s5[,c(1, 6, 11, 16, 21, 26)],
                method = "spearman")$r), 2)
```

```
##                    anti.pid.s avoid.pid.s bord.pid.s nar.pid.s obs.pid.s
## anti.siffm.count         0.26       -0.10       0.07      0.35     -0.07
## anti.neos.count          0.49        0.11       0.27      0.43      0.13
## anti.neoo.count          0.25        0.08       0.15      0.22      0.05
## avoid.siffm.count        0.13        0.48       0.28     -0.10      0.32
## avoid.neos.count         0.21        0.68       0.45     -0.04      0.46
## avoid.neoo.count         0.09        0.36       0.22     -0.08      0.27
## bord.siffm.count         0.47        0.46       0.59      0.30      0.32
## bord.neos.count          0.52        0.60       0.71      0.26      0.42
## bord.neoo.count          0.18        0.32       0.36      0.02      0.19
## nar.siffm.count          0.12       -0.14      -0.10      0.23     -0.08
## nar.neos.count           0.51        0.16       0.28      0.42      0.18
## nar.neoo.count           0.23        0.12       0.14      0.22      0.10
## obs.siffm.count         -0.30       -0.06      -0.27     -0.18      0.05
## obs.neos.count          -0.42       -0.21      -0.35     -0.17     -0.10
## obs.neoo.count          -0.36       -0.11      -0.30     -0.20     -0.08
## schiz.siffm.count        0.26        0.52       0.34      0.03      0.31
## schiz.neos.count         0.41        0.68       0.54      0.10      0.49
## schiz.neoo.count         0.18        0.40       0.26     -0.04      0.26
## gen.z                    0.42        0.60       0.50      0.22      0.44
##                    schiz.pid.s
## anti.siffm.count          0.00
## anti.neos.count           0.26
## anti.neoo.count           0.14
## avoid.siffm.count         0.30
## avoid.neos.count          0.43
## avoid.neoo.count          0.20
## bord.siffm.count          0.37
## bord.neos.count           0.48
## bord.neoo.count           0.19
## nar.siffm.count          -0.04
## nar.neos.count            0.30
## nar.neoo.count            0.16
## obs.siffm.count          -0.10
## obs.neos.count           -0.26
## obs.neoo.count           -0.24
## schiz.siffm.count         0.40
## schiz.neos.count          0.56
## schiz.neoo.count          0.29
## gen.z                     0.48
```

```
## Correlations with PID-5-IRF scores
round((corr.test(pp.s5[,c(3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19, 20, 23, 24, 25, 28, 29, 30, 31)],
                pp.s5[,c(2, 7, 12, 17, 22, 27)],
                method = "spearman")$r), 2)
```

```
##                    anti.pid.i avoid.pid.i bord.pid.i nar.pid.i obs.pid.i
## anti.siffm.count         0.28       -0.02       0.16      0.22      0.13
## anti.neos.count          0.42        0.17       0.29      0.33      0.24
## anti.neoo.count          0.70        0.24       0.49      0.62      0.31
## avoid.siffm.count       -0.02        0.34       0.16     -0.04      0.15
## avoid.neos.count         0.07        0.36       0.23     -0.06      0.22
## avoid.neoo.count         0.03        0.57       0.28     -0.16      0.32
## bord.siffm.count         0.39        0.30       0.47      0.27      0.27
## bord.neos.count          0.34        0.39       0.46      0.23      0.29
## bord.neoo.count          0.52        0.54       0.73      0.35      0.29
## nar.siffm.count          0.17       -0.05       0.01      0.15      0.11
## nar.neos.count           0.40        0.18       0.27      0.30      0.27
## nar.neoo.count           0.68        0.31       0.46      0.62      0.37
## obs.siffm.count         -0.20       -0.02      -0.18     -0.05     -0.07
## obs.neos.count          -0.21       -0.15      -0.25     -0.07     -0.13
## obs.neoo.count          -0.52       -0.16      -0.48     -0.32     -0.18
## schiz.siffm.count        0.12        0.34       0.20      0.01      0.20
## schiz.neos.count         0.17        0.36       0.28     -0.01      0.23
## schiz.neoo.count         0.28        0.67       0.43      0.09      0.39
## gen.z                    0.49        0.61       0.56      0.33      0.46
##                    schiz.pid.i
## anti.siffm.count          0.14
## anti.neos.count           0.31
## anti.neoo.count           0.43
## avoid.siffm.count         0.19
## avoid.neos.count          0.22
## avoid.neoo.count          0.28
## bord.siffm.count          0.31
## bord.neos.count           0.31
## bord.neoo.count           0.42
## nar.siffm.count           0.09
## nar.neos.count            0.32
## nar.neoo.count            0.47
## obs.siffm.count          -0.08
## obs.neos.count           -0.16
## obs.neoo.count           -0.28
## schiz.siffm.count         0.25
## schiz.neos.count          0.29
## schiz.neoo.count          0.49
## gen.z                     0.55
```

Main Analyses

Self-other agreement for PID-5 Domains

```
## Negative Affect

# Mean-level bias
t.test(pp.full$NEGAFF.s, pp.full$NEGAFF.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$NEGAFF.s and pp.full$NEGAFF.i
## t = -1.7464, df = 207, p-value = 0.08223
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.17564823  0.01063501
## sample estimates:
## mean of the differences
##             -0.08250661
```

```
wilcox.test(pp.full$NEGAFF.s, pp.full$NEGAFF.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$NEGAFF.s and pp.full$NEGAFF.i
## V = 9572, p-value = 0.1673
## alternative hypothesis: true location shift is not equal to 0
```

```
# Cohen's dz
(1.7464/sqrt(208))
```

```
## [1] 0.1210911
```

```
# Cohen's U3
pnorm(.121)
```

```
## [1] 0.5481545
```

```
# OVL
(2*pnorm((-abs(.121))/2))
```

```
## [1] 0.9517574
```

```
# Correlational accuracy
print(corr.test(pp.full$NEGAFF.s, pp.full$NEGAFF.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$NEGAFF.s, y = pp.full$NEGAFF.i, method = "spearman")
## Correlation matrix
## [1] 0.447
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.331 0.447     0.549     0     0.331     0.549
```

```
## Antagonism

# Mean-level bias
t.test(pp.full$ANTAG.s, pp.full$ANTAG.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$ANTAG.s and pp.full$ANTAG.i
## t = -3.4965, df = 207, p-value = 0.0005768
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.28199290 -0.07864634
## sample estimates:
## mean of the differences
##              -0.1803196
```

```
wilcox.test(pp.full$ANTAG.s, pp.full$ANTAG.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$ANTAG.s and pp.full$ANTAG.i
## V = 8358, p-value = 0.007203
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.4965/sqrt(208))
```

```
## [1] 0.2424387
```

```r
pnorm(.242)
```

```
## [1] 0.5956099
```

```r
(2*pnorm((-abs(.242))/2))
```

```
## [1] 0.903691
```

```r
# Corelational accuracy
print(corr.test(pp.full$ANTAG.s, pp.full$ANTAG.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$ANTAG.s, y = pp.full$ANTAG.i, method = "spearman")
## Correlation matrix
## [1] 0.268
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.137 0.268      0.39     0     0.137      0.39
```

```r
## Disinhibition

# Mean-level bias
t.test(pp.full$DISINH.s, pp.full$DISINH.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$DISINH.s and pp.full$DISINH.i
## t = -6.0314, df = 207, p-value = 7.377e-09
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3117628 -0.1581592
## sample estimates:
## mean of the differences
##               -0.234961
```

```r
wilcox.test(pp.full$DISINH.s, pp.full$DISINH.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$DISINH.s and pp.full$DISINH.i
## V = 6138, p-value = 8.289e-08
## alternative hypothesis: true location shift is not equal to 0
```

```r
(6.0314/sqrt(208))
```

```
## [1] 0.4182023
```

```r
pnorm(.418)
```

```
## [1] 0.6620264
```

```r
(2*pnorm((-abs(.418))/2))
```

```
## [1] 0.8344482
```

```r
# Correlational accuracy
print(corr.test(pp.full$DISINH.s, pp.full$DISINH.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$DISINH.s, y = pp.full$DISINH.i, method = "spearman")
## Correlation matrix
## [1] 0.566
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.466 0.566     0.652     0     0.466     0.652
```

```r
## Psychoticism

# Mean-level bias
t.test(pp.full$PSYCHOT.s, pp.full$PSYCHOT.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$PSYCHOT.s and pp.full$PSYCHOT.i
## t = -0.79338, df = 207, p-value = 0.4285
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.12769828  0.05441214
## sample estimates:
## mean of the differences
##             -0.03664307
```

```r
wilcox.test(pp.full$PSYCHOT.s, pp.full$PSYCHOT.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$PSYCHOT.s and pp.full$PSYCHOT.i
## V = 9317.5, p-value = 0.5095
## alternative hypothesis: true location shift is not equal to 0
```

```r
(.79338/sqrt(208))
```

```
## [1] 0.05501101
```

```r
pnorm(.055)
```

```
## [1] 0.5219308
```

```r
(2*pnorm((-abs(.055))/2))
```

```
## [1] 0.9780609
```

```r
# Correlational accuracy
print(corr.test(pp.full$PSYCHOT.s, pp.full$PSYCHOT.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$PSYCHOT.s, y = pp.full$PSYCHOT.i, method = "spearman")
## Correlation matrix
## [1] 0.31
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.182  0.31     0.428     0     0.182     0.428
```

```
## Detachment

# Mean-level bias
t.test(pp.full$DETACH.s, pp.full$DETACH.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$DETACH.s and pp.full$DETACH.i
## t = -1.6062, df = 207, p-value = 0.1097
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.14444728  0.01474643
## sample estimates:
## mean of the differences
##             -0.06485043
```

```
wilcox.test(pp.full$DETACH.s, pp.full$DETACH.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$DETACH.s and pp.full$DETACH.i
## V = 9512, p-value = 0.1188
## alternative hypothesis: true location shift is not equal to 0
```

```
(1.6062/sqrt(208))
```

```
## [1] 0.1113699
```

```
pnorm(.111)
```

```
## [1] 0.5441918
```

```
(2*pnorm((-abs(.111))/2))
```

```
## [1] 0.9557401
```

```
# Correlational accuracy
print(corr.test(pp.full$DETACH.s, pp.full$PSYCHOT.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$DETACH.s, y = pp.full$PSYCHOT.i, method = "spearman")
## Correlation matrix
## [1] 0.235
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0.001
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.102 0.235     0.359 0.001     0.102     0.359
```

```
###### Regression models #######

##### Negative Affect

## Centering ##
pp.full$negaff.s_c = pp.full$NEGAFF.s - mean(pp.full$NEGAFF.s)
pp.full$negaff.i_c = pp.full$NEGAFF.i - mean(pp.full$NEGAFF.s)

## Base model
negaff.model1 = lm(negaff.i_c ~ 1 + negaff.s_c, data = pp.full)
summary(negaff.model1)
```

```
##
## Call:
## lm(formula = negaff.i_c ~ 1 + negaff.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.1804 -0.4730 -0.1263  0.3770  1.9074
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.08251    0.04128   1.999   0.0469 *
## negaff.s_c   0.46538    0.06623   7.027 3.04e-11 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5953 on 206 degrees of freedom
## Multiple R-squared:  0.1933, Adjusted R-squared:  0.1894
## F-statistic: 49.37 on 1 and 206 DF,  p-value: 3.037e-11
```

```
round(confint(negaff.model1), 3)
```

```
##             2.5 % 97.5 %
## (Intercept) 0.001  0.164
## negaff.s_c  0.335  0.596
```

```
## Moderation model
negaff.model2 = lm(negaff.i_c ~ negaff.s_c*gen.z, data = pp.full)
summary(negaff.model2)
```

```
##
## Call:
## lm(formula = negaff.i_c ~ negaff.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0941 -0.3941 -0.0764  0.3376  1.7213
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)       0.081288   0.041594   1.954 0.052032 .
## negaff.s_c        0.262363   0.069417   3.780 0.000206 ***
## gen.z             0.278970   0.042420   6.576 3.97e-10 ***
## negaff.s_c:gen.z 0.004336   0.062860   0.069 0.945073
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5431 on 204 degrees of freedom
## Multiple R-squared:  0.3352, Adjusted R-squared:  0.3254
## F-statistic: 34.28 on 3 and 204 DF,  p-value: < 2.2e-16
```

```
round(confint(negaff.model2), 3)
```

```
##                   2.5 % 97.5 %
## (Intercept)      -0.001  0.163
## negaff.s_c        0.125  0.399
## gen.z             0.195  0.363
## negaff.s_c:gen.z -0.120  0.128
```

```
# R2 increase significance
anova(negaff.model1, negaff.model2)
```

```
## Analysis of Variance Table
##
## Model 1: negaff.i_c ~ 1 + negaff.s_c
## Model 2: negaff.i_c ~ negaff.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 73.010
## 2    204 60.171  2    12.839 21.764 2.708e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Test of simple intercepts

at.negafffactor = seq(-2.69, 3.01, .01)
intercepts.negaff = negaff.model2$coef[1] + negaff.model2$coef[3]*at.negafffactor

estmean.negaff = coef(negaff.model2)
var.negaff = vcov(negaff.model2)
se.negaff = rep(NA, length(at.negafffactor))

for(i in 1:length(at.negafffactor)){
  j = at.negafffactor[i]
  se.negaff[i] = deltamethod(~ (x1) + (x3)*j, estmean.negaff, var.negaff)
}

upper.negaff = intercepts.negaff + 1.96*se.negaff
lower.negaff = intercepts.negaff - 1.96*se.negaff

negaff.intercepts = cbind(at.negafffactor, intercepts.negaff, lower.negaff, upper.negaff)
negaff.intercepts = as.data.frame(negaff.intercepts) ## Dataframe gives CIs for intercepts at different
                                                     ## values of the GPPC
```

```
####### Antagonism

## Centering ##
pp.full$ant.s_c = pp.full$ANTAG.s - mean(pp.full$ANTAG.s)
pp.full$ant.i_c = pp.full$ANTAG.i - mean(pp.full$ANTAG.s)

## Base model
ant.model1 = lm(ant.i_c ~ 1 + ant.s_c, data = pp.full)
summary(ant.model1)
```

```
##
## Call:
## lm(formula = ant.i_c ~ 1 + ant.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0497 -0.5632 -0.1171  0.4685  2.1630
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.18032    0.04685   3.849 0.000158 ***
## ant.s_c      0.40118    0.08947   4.484 1.22e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6757 on 206 degrees of freedom
## Multiple R-squared:  0.08892,	Adjusted R-squared:  0.0845
## F-statistic:  20.1 on 1 and 206 DF,  p-value: 1.217e-05
```

```
round(confint(ant.model1), 3)
```

```
##             2.5 % 97.5 %
## (Intercept) 0.088  0.273
## ant.s_c     0.225  0.578
```

```
## Moderation model
ant.model2 = lm(ant.i_c ~ ant.s_c*gen.z, data = pp.full)
summary(ant.model2)
```

```
##
## Call:
## lm(formula = ant.i_c ~ ant.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2724 -0.5034 -0.1217  0.3980  2.1822
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.16976    0.04558   3.724 0.000253 ***
## ant.s_c        0.20115    0.09211   2.184 0.030118 *
## gen.z          0.26676    0.04684   5.695 4.25e-08 ***
## ant.s_c:gen.z  0.05736    0.07236   0.793 0.428927
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6287 on 204 degrees of freedom
## Multiple R-squared:  0.219,	Adjusted R-squared:  0.2075
## F-statistic: 19.07 on 3 and 204 DF,  p-value: 6.091e-11
```

```
round(confint(ant.model2), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)     0.080  0.260
## ant.s_c         0.020  0.383
## gen.z           0.174  0.359
## ant.s_c:gen.z -0.085  0.200
```

```
# R2 increase significance
anova(ant.model1, ant.model2)
```

```
## Analysis of Variance Table
##
## Model 1: ant.i_c ~ 1 + ant.s_c
## Model 2: ant.i_c ~ ant.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 94.061
## 2    204 80.628  2    13.433 16.993 1.493e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Test of simple intercepts

at.antfactor = seq(-2.69, 3.01, .01)
intercepts.ant = ant.model2$coef[1] + ant.model2$coef[3]*at.antfactor

estmean.ant = coef(ant.model2)
var.ant = vcov(ant.model2)
se.ant = rep(NA, length(at.antfactor))

for(i in 1:length(at.antfactor)){
  j = at.antfactor[i]
  se.ant[i] = deltamethod(~ (x1) + (x3)*j, estmean.ant, var.ant)
}

upper.ant = intercepts.ant + 1.96*se.ant
lower.ant = intercepts.ant - 1.96*se.ant

ant.intercepts = cbind(at.antfactor, intercepts.ant, lower.ant, upper.ant)
ant.intercepts = as.data.frame(ant.intercepts)
```

```
##### Disinhibition

## Centering
pp.full$dis.s_c = pp.full$DISINH.s - mean(pp.full$DISINH.s)
pp.full$dis.i_c = pp.full$DISINH.i - mean(pp.full$DISINH.s)

## Base model
dis.model1 = lm(dis.i_c ~ 1 + dis.s_c, data = pp.full)
summary(dis.model1)
```

```
##
## Call:
## lm(formula = dis.i_c ~ 1 + dis.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.07258 -0.40059 -0.04881  0.34803  1.53469
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.23496    0.03576    6.57 4.03e-10 ***
## dis.s_c      0.61830    0.06064   10.20  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5158 on 206 degrees of freedom
## Multiple R-squared:  0.3354, Adjusted R-squared:  0.3322
## F-statistic:   104 on 1 and 206 DF,  p-value: < 2.2e-16
```

```r
round(confint(dis.model1), 3)
```

```
##              2.5 % 97.5 %
## (Intercept) 0.164  0.305
## dis.s_c     0.499  0.738
```

```r
## Moderation model
dis.model2 = lm(dis.i_c ~ dis.s_c*gen.z, data = pp.full)
summary(dis.model2)
```

```
##
## Call:
## lm(formula = dis.i_c ~ dis.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.09123 -0.35959 -0.02728  0.32870  1.43463
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)     0.25590    0.03715   6.887 6.90e-11 ***
## dis.s_c         0.55655    0.06617   8.411 7.01e-15 ***
## gen.z           0.13099    0.03876   3.380  0.00087 ***
## dis.s_c:gen.z -0.08710    0.05336  -1.632  0.10420
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5029 on 204 degrees of freedom
## Multiple R-squared:  0.3743, Adjusted R-squared:  0.3651
## F-statistic: 40.69 on 3 and 204 DF,  p-value: < 2.2e-16
```

```r
round(confint(dis.model2), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)     0.183  0.329
## dis.s_c         0.426  0.687
## gen.z           0.055  0.207
## dis.s_c:gen.z -0.192  0.018
```

```r
anova(dis.model1, dis.model2)
```

```
## Analysis of Variance Table
##
## Model 1: dis.i_c ~ 1 + dis.s_c
## Model 2: dis.i_c ~ dis.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F   Pr(>F)
## 1    206 54.800
## 2    204 51.592  2    3.2079 6.3422 0.002127 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Test of simple intercepts

at.disfactor = seq(-2.69, 3.01, .01)
intercepts.dis = dis.model2$coef[1] + dis.model2$coef[3]*at.disfactor

estmean.dis = coef(dis.model2)
var.dis = vcov(dis.model2)
se.dis = rep(NA, length(at.disfactor))

for(i in 1:length(at.disfactor)){
  j = at.disfactor[i]
  se.dis[i] = deltamethod(~ (x1) + (x3)*j, estmean.dis, var.dis)
}

upper.dis = intercepts.dis + 1.96*se.dis
lower.dis = intercepts.dis - 1.96*se.dis

dis.intercepts = cbind(at.disfactor, intercepts.dis, lower.dis, upper.dis)
dis.intercepts = as.data.frame(dis.intercepts)
```

```r
##### Psychoticism

## Centering
pp.full$p.s_c = pp.full$PSYCHOT.s - mean(pp.full$PSYCHOT.s)
pp.full$p.i_c = pp.full$PSYCHOT.i - mean(pp.full$PSYCHOT.s)

## Base model
p.model1 = lm(p.i_c ~ 1 + p.s_c, data = pp.full)
summary(p.model1)
```

```
##
## Call:
## lm(formula = p.i_c ~ 1 + p.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.8322 -0.4296 -0.1898  0.3027  1.6600
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.03664    0.03687   0.994 0.321489
## p.s_c        0.24808    0.06899   3.596 0.000405 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5318 on 206 degrees of freedom
## Multiple R-squared:  0.05906,    Adjusted R-squared:  0.0545
## F-statistic: 12.93 on 1 and 206 DF,  p-value: 0.0004045
```

```r
round(confint(p.model1), 3)
```

```
##              2.5 % 97.5 %
## (Intercept) -0.036  0.109
## p.s_c        0.112  0.384
```

```r
## Full model
p.model2 = lm(p.i_c ~ p.s_c*gen.z, data = pp.full)
summary(p.model2)
```

```
##
## Call:
## lm(formula = p.i_c ~ p.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.7700 -0.3966 -0.1645  0.2727  1.5398
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.05305    0.03649   1.454   0.1476
## p.s_c        0.16604    0.06970   2.382   0.0181 *
## gen.z        0.19101    0.03654   5.228 4.23e-07 ***
## p.s_c:gen.z -0.10326    0.07101  -1.454   0.1475
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5005 on 204 degrees of freedom
## Multiple R-squared:  0.1744, Adjusted R-squared:  0.1623
## F-statistic: 14.37 on 3 and 204 DF,  p-value: 1.575e-08
```

```
round(confint(p.model2), 3)
```

```
##              2.5 % 97.5 %
## (Intercept) -0.019  0.125
## p.s_c        0.029  0.303
## gen.z        0.119  0.263
## p.s_c:gen.z -0.243  0.037
```

```
anova(p.model1, p.model2)
```

```
## Analysis of Variance Table
##
## Model 1: p.i_c ~ 1 + p.s_c
## Model 2: p.i_c ~ p.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 58.253
## 2    204 51.111  2    7.1428 14.255 1.605e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Test of simple intercepts

at.pfactor = seq(-2.69, 3.01, .01)
intercepts.p = p.model2$coef[1] + p.model2$coef[3]*at.pfactor

estmean.p = coef(p.model2)
var.p = vcov(p.model2)
se.p = rep(NA, length(at.pfactor))

for(i in 1:length(at.pfactor)){
  j = at.pfactor[i]
  se.p[i] = deltamethod(~ (x1) + (x3)*j, estmean.p, var.p)
}

upper.p = intercepts.p + 1.96*se.p
lower.p = intercepts.p - 1.96*se.p

p.intercepts = cbind(at.pfactor, intercepts.p, lower.p, upper.p)
p.intercepts = as.data.frame(p.intercepts)
```

```r
###### Detachment #######

## Centering
pp.full$det.s_c = pp.full$DETACH.s - mean(pp.full$DETACH.s)
pp.full$det.i_c = pp.full$DETACH.i - mean(pp.full$DETACH.s)

## Base model
det.model1 = lm(det.i_c ~ 1 + det.s_c, data = pp.full)
summary(det.model1)
```

```
##
## Call:
## lm(formula = det.i_c ~ 1 + det.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.95080 -0.37811 -0.04249  0.29914  1.61513
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.06485    0.03311   1.959   0.0515 .
## det.s_c      0.38513    0.06095   6.318 1.61e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4775 on 206 degrees of freedom
## Multiple R-squared:  0.1623, Adjusted R-squared:  0.1583
## F-statistic: 39.92 on 1 and 206 DF,  p-value: 1.606e-09
```

```r
round(confint(det.model1), 3)
```

```
##             2.5 % 97.5 %
## (Intercept) 0.000  0.130
## det.s_c     0.265  0.505
```

```r
## Moderation model
det.model2 = lm(det.i_c ~ det.s_c*gen.z, data = pp.full)
summary(det.model2)
```

```
##
## Call:
## lm(formula = det.i_c ~ det.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.95101 -0.30476 -0.02503  0.29136  1.08503
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.08324    0.03335   2.496   0.0134 *
## det.s_c        0.12567    0.07214   1.742   0.0830 .
## gen.z          0.26238    0.03752   6.994 3.76e-11 ***
## det.s_c:gen.z -0.05643    0.04568  -1.235   0.2181
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4305 on 204 degrees of freedom
## Multiple R-squared:  0.326,  Adjusted R-squared:  0.3161
## F-statistic: 32.89 on 3 and 204 DF,  p-value: < 2.2e-16
```

```r
round(confint(det.model2), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)     0.017  0.149
## det.s_c        -0.017  0.268
## gen.z           0.188  0.336
## det.s_c:gen.z -0.146  0.034
```

```
anova(det.model1, det.model2)
```

```
## Analysis of Variance Table
##
## Model 1: det.i_c ~ 1 + det.s_c
## Model 2: det.i_c ~ det.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 46.978
## 2    204 37.799  2     9.179 24.769 2.343e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Test of simple intercepts

at.detfactor = seq(-2.69, 3.01, .01)
intercepts.det = det.model2$coef[1] + det.model2$coef[3]*at.detfactor

estmean.det = coef(det.model2)
var.det = vcov(det.model2)
se.det = rep(NA, length(at.detfactor))

for(i in 1:length(at.detfactor)){
  j = at.detfactor[i]
  se.det[i] = deltamethod(~ (x1) + (x3)*j, estmean.det, var.det)
}

upper.det = intercepts.det + 1.96*se.det
lower.det = intercepts.det - 1.96*se.det

det.intercepts = cbind(at.detfactor, intercepts.det, lower.det, upper.det)
det.intercepts = as.data.frame(det.intercepts)
```

Self-other agreement for PID-5 facets

```
## Anhedonia ##

t.test(pp.full$anhedonia.s, pp.full$anhedonia.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$anhedonia.s and pp.full$anhedonia.i
## t = -0.48851, df = 206, p-value = 0.6257
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.11512287  0.06940168
## sample estimates:
## mean of the differences
##             -0.02286059
```

```
wilcox.test(pp.full$anhedonia.s, pp.full$anhedonia.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$anhedonia.s and pp.full$anhedonia.i
## V = 8750, p-value = 0.5045
## alternative hypothesis: true location shift is not equal to 0
```

```r
(.48851/sqrt(207))
```

```
## [1] 0.03395379
```

```r
pnorm(.034)
```

```
## [1] 0.5135614
```

```r
(2*pnorm((-abs(.034))/2))
```

```
## [1] 0.9864366
```

```r
print(corr.test(pp.full$anhedonia.s, pp.full$anhedonia.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$anhedonia.s, y = pp.full$anhedonia.i, method = "spearman")
## Correlation matrix
## [1] 0.433
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.315 0.433     0.537     0     0.315     0.537
```

```r
# Base model
pp.full$anhedonia.s_c = pp.full$anhedonia.s - mean(pp.full$anhedonia.s)
pp.full$anhedonia.i_c = pp.full$anhedonia.i - mean(pp.full$anhedonia.s)

anh1 = lm(anhedonia.i_c ~ 1 + anhedonia.s_c, data = pp.full)
summary(anh1)
```

```
##
## Call:
## lm(formula = anhedonia.i_c ~ 1 + anhedonia.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.10036 -0.43169 -0.07911  0.29706  1.99401
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.02507    0.03827   0.655    0.513
## anhedonia.s_c  0.39625    0.05949   6.660 2.46e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5506 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.1779, Adjusted R-squared:  0.1739
## F-statistic: 44.36 on 1 and 205 DF,  p-value: 2.462e-10
```

```r
round(confint(anh1), 3)
```

```
##                2.5 % 97.5 %
## (Intercept)   -0.050  0.101
## anhedonia.s_c  0.279  0.514
```

```r
# Moderation model
anh2 = lm(anhedonia.i_c ~ anhedonia.s_c*gen.z, data = pp.full)
summary(anh2)
```

```
##
## Call:
## lm(formula = anhedonia.i_c ~ anhedonia.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.9583 -0.3655 -0.0824  0.3417  1.5574
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)          0.05376    0.03964   1.356   0.1765
## anhedonia.s_c        0.17252    0.06942   2.485   0.0138 *
## gen.z                0.28293    0.04326   6.540  4.9e-10 ***
## anhedonia.s_c:gen.z -0.07640    0.05020  -1.522   0.1295
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.502 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.3234, Adjusted R-squared:  0.3134
## F-statistic: 32.34 on 3 and 203 DF,  p-value: < 2.2e-16
```

```
round(confint(anh2), 3)
```

```
##                      2.5 % 97.5 %
## (Intercept)         -0.024  0.132
## anhedonia.s_c        0.036  0.309
## gen.z                0.198  0.368
## anhedonia.s_c:gen.z -0.175  0.023
```

```
anova(anh1, anh2)
```

```
## Analysis of Variance Table
##
## Model 1: anhedonia.i_c ~ 1 + anhedonia.s_c
## Model 2: anhedonia.i_c ~ anhedonia.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    205 62.158
## 2    203 51.159  2    10.999 21.823 2.603e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Anxiousness ##

t.test(pp.full$anxiousness.s, pp.full$anxiousness.i.ACCURATE, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$anxiousness.s and pp.full$anxiousness.i.ACCURATE
## t = 1.0649, df = 207, p-value = 0.2882
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.0492310  0.1648827
## sample estimates:
## mean of the differences
##              0.05782585
```

```
wilcox.test(pp.full$anxiousness.s, pp.full$anxiousness.i.ACCURATE, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$anxiousness.s and pp.full$anxiousness.i.ACCURATE
## V = 12036, p-value = 0.08231
## alternative hypothesis: true location shift is not equal to 0
```

```r
(1.0649/sqrt(208))
```

```
## [1] 0.07383753
```

```r
pnorm(.074)
```

```
## [1] 0.5294948
```

```r
(2*pnorm((-abs(.074))/2))
```

```
## [1] 0.970485
```

```r
print(corr.test(pp.full$anxiousness.s, pp.full$anxiousness.i.ACCURATE, method = "spearman"), short = F, digi
ts = 3)
```

```
## Call:corr.test(x = pp.full$anxiousness.s, y = pp.full$anxiousness.i.ACCURATE,
##     method = "spearman")
## Correlation matrix
## [1] 0.452
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##        raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA      0.337 0.452     0.554     0     0.337     0.554
```

```r
# Base model
pp.full$anxiousness.s_c = pp.full$anxiousness.s - mean(pp.full$anxiousness.s)
pp.full$anxiousness.i.ACCURATE_c = pp.full$anxiousness.i.ACCURATE - mean(pp.full$anxiousness.s)

anx1 = lm(anxiousness.i.ACCURATE_c ~ 1 + anxiousness.s_c, data = pp.full)
summary(anx1)
```

```
##
## Call:
## lm(formula = anxiousness.i.ACCURATE_c ~ 1 + anxiousness.s_c,
##     data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.4485 -0.5151 -0.1814  0.4740  2.0074
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)     -0.05783    0.04681  -1.235    0.218
## anxiousness.s_c  0.46129    0.06326   7.292 6.43e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6752 on 206 degrees of freedom
## Multiple R-squared:  0.2052, Adjusted R-squared:  0.2013
## F-statistic: 53.18 on 1 and 206 DF,  p-value: 6.426e-12
```

```r
round(confint(anx1), 3)
```

```
##                  2.5 % 97.5 %
## (Intercept)     -0.150  0.034
## anxiousness.s_c  0.337  0.586
```

```r
# Moderation model
anx2 = lm(anxiousness.i.ACCURATE_c ~ anxiousness.s_c*gen.z, data = pp.full)
summary(anx2)
```

```
##
## Call:
## lm(formula = anxiousness.i.ACCURATE_c ~ anxiousness.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.41765 -0.42661 -0.06202  0.36268  1.80343
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)           -0.07647    0.04762  -1.606    0.110
## anxiousness.s_c        0.18181    0.07088   2.565    0.011 *
## gen.z                  0.35704    0.05020   7.112 1.89e-11 ***
## anxiousness.s_c:gen.z  0.04648    0.05575   0.834    0.405
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6063 on 204 degrees of freedom
## Multiple R-squared:  0.3652, Adjusted R-squared:  0.3559
## F-statistic: 39.13 on 3 and 204 DF,  p-value: < 2.2e-16
```

```r
round(confint(anx2), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)           -0.170  0.017
## anxiousness.s_c        0.042  0.322
## gen.z                  0.258  0.456
## anxiousness.s_c:gen.z -0.063  0.156
```

```r
anova(anx1, anx2)
```

```
## Analysis of Variance Table
##
## Model 1: anxiousness.i.ACCURATE_c ~ 1 + anxiousness.s_c
## Model 2: anxiousness.i.ACCURATE_c ~ anxiousness.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq     F    Pr(>F)
## 1    206 93.901
## 2    204 74.991  2    18.909 25.72 1.094e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Attention seeking ##

t.test(pp.full$attentionseeking.s, pp.full$attentionseeking.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$attentionseeking.s and pp.full$attentionseeking.i
## t = -2.964, df = 207, p-value = 0.003392
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.30940271 -0.06222045
## sample estimates:
## mean of the differences
##              -0.1858116
```

```r
wilcox.test(pp.full$attentionseeking.s, pp.full$attentionseeking.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$attentionseeking.s and pp.full$attentionseeking.i
## V = 7332.5, p-value = 0.009006
## alternative hypothesis: true location shift is not equal to 0
```

```
(2.964/sqrt(208))
```

```
## [1] 0.2055164
```

```
pnorm(.206)
```

```
## [1] 0.5816045
```

```
(2*pnorm((-abs(.206))/2))
```

```
## [1] 0.917963
```

```
print(corr.test(pp.full$attentionseeking.s, pp.full$attentionseeking.i, method = "spearman"),
      short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$attentionseeking.s, y = pp.full$attentionseeking.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.236
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0.001
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.103 0.236      0.36 0.001     0.103      0.36
```

```
# Base model
pp.full$attentionseeking.s_c = pp.full$attentionseeking.s - mean(pp.full$attentionseeking.s)
pp.full$attentionseeking.i_c = pp.full$attentionseeking.i - mean(pp.full$attentionseeking.s)

att1 = lm(attentionseeking.i_c ~ 1 + attentionseeking.s_c, data = pp.full)
summary(att1)
```

```
##
## Call:
## lm(formula = attentionseeking.i_c ~ 1 + attentionseeking.s_c,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.27380 -0.62602 -0.06193  0.51520  2.24898
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.18581    0.05257   3.535 0.000504 ***
## attentionseeking.s_c  0.29873    0.07458   4.006 8.64e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7581 on 206 degrees of freedom
## Multiple R-squared:  0.07226,    Adjusted R-squared:  0.06775
## F-statistic: 16.04 on 1 and 206 DF,  p-value: 8.64e-05
```

```
round(confint(att1), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)          0.082  0.289
## attentionseeking.s_c 0.152  0.446
```

```
# Moderation model
att2 = lm(attentionseeking.i_c ~ attentionseeking.s_c*gen.z, data = pp.full)
summary(att2)
```

```
##
## Call:
## lm(formula = attentionseeking.i_c ~ attentionseeking.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.35375 -0.60015 -0.05232  0.54470  2.16928
##
## Coefficients:
##                             Estimate Std. Error t value Pr(>|t|)
## (Intercept)                  0.18307    0.05202   3.519 0.000534 ***
## attentionseeking.s_c         0.26253    0.07447   3.525 0.000522 ***
## gen.z                        0.16109    0.05237   3.076 0.002386 **
## attentionseeking.s_c:gen.z  0.02760    0.06726   0.410 0.681966
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.744 on 204 degrees of freedom
## Multiple R-squared:  0.115,  Adjusted R-squared:  0.102
## F-statistic: 8.838 on 3 and 204 DF,  p-value: 1.553e-05
```

```
round(confint(att2), 3)
```

```
##                               2.5 % 97.5 %
## (Intercept)                   0.080  0.286
## attentionseeking.s_c          0.116  0.409
## gen.z                         0.058  0.264
## attentionseeking.s_c:gen.z -0.105  0.160
```

```
anova(att1, att2)
```

```
## Analysis of Variance Table
##
## Model 1: attentionseeking.i_c ~ 1 + attentionseeking.s_c
## Model 2: attentionseeking.i_c ~ attentionseeking.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq     F    Pr(>F)
## 1    206 118.39
## 2    204 112.94  2    5.4574 4.929 0.008119 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Callousness ##

t.test(pp.full$callousness.s, pp.full$callousness.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$callousness.s and pp.full$callousness.i
## t = -5.5883, df = 207, p-value = 7.174e-08
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3012704 -0.1441360
## sample estimates:
## mean of the differences
##              -0.2227032
```

```r
wilcox.test(pp.full$callousness.s, pp.full$callousness.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$callousness.s and pp.full$callousness.i
## V = 5044, p-value = 1.652e-06
## alternative hypothesis: true location shift is not equal to 0
```

```r
(5.5883/sqrt(208))
```

```
## [1] 0.3874789
```

```r
pnorm(.387)
```

```
## [1] 0.6506219
```

```r
(2*pnorm((-abs(.387))/2))
```

```
## [1] 0.8465674
```

```r
print(corr.test(pp.full$callousness.s, pp.full$callousness.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$callousness.s, y = pp.full$callousness.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.356
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.231 0.356     0.469     0     0.231     0.469
```

```r
# Base model
pp.full$callousness.s_c = pp.full$callousness.s - mean(pp.full$callousness.s)
pp.full$callousness.i_c = pp.full$callousness.i - mean(pp.full$callousness.s)

cal1 = lm(callousness.i_c ~ 1 + callousness.s_c, data = pp.full)
summary(cal1)
```

```
##
## Call:
## lm(formula = callousness.i_c ~ 1 + callousness.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0969 -0.4111 -0.1652  0.2664  1.6480
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)      0.22270    0.03740   5.955 1.11e-08 ***
## callousness.s_c  0.51431    0.09005   5.711 3.88e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5393 on 206 degrees of freedom
## Multiple R-squared:  0.1367, Adjusted R-squared:  0.1325
## F-statistic: 32.62 on 1 and 206 DF,  p-value: 3.883e-08
```

```r
round(confint(cal1), 3)
```

```
##                  2.5 % 97.5 %
## (Intercept)      0.149  0.296
## callousness.s_c 0.337  0.692
```

```
# Moderation model

cal2 = lm(callousness.i_c ~ callousness.s_c*gen.z, data = pp.full)
summary(cal2)
```

```
##
## Call:
## lm(formula = callousness.i_c ~ callousness.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.94258 -0.32657 -0.09243  0.24840  1.46846
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            0.21426    0.03666   5.844 2.00e-08 ***
## callousness.s_c        0.15886    0.11019   1.442    0.151
## gen.z                  0.27227    0.03873   7.029 3.06e-11 ***
## callousness.s_c:gen.z  0.04162    0.07143   0.583    0.561
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4857 on 204 degrees of freedom
## Multiple R-squared:  0.3066, Adjusted R-squared:  0.2964
## F-statistic: 30.07 on 3 and 204 DF,  p-value: 3.86e-16
```

```
round(coef(cal2), 3)
```

```
##           (Intercept)       callousness.s_c                 gen.z
##                 0.214                 0.159                 0.272
## callousness.s_c:gen.z
##                 0.042
```

```
round(confint(cal2), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)            0.142  0.287
## callousness.s_c       -0.058  0.376
## gen.z                  0.196  0.349
## callousness.s_c:gen.z -0.099  0.182
```

```
anova(cal1, cal2)
```

```
## Analysis of Variance Table
##
## Model 1: callousness.i_c ~ 1 + callousness.s_c
## Model 2: callousness.i_c ~ callousness.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 59.919
## 2    204 48.126  2    11.793 24.993 1.957e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Deceitfulness ##

t.test(pp.full$deceitfulness.s, pp.full$deceitfulness.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$deceitfulness.s and pp.full$deceitfulness.i
## t = -3.1701, df = 207, p-value = 0.001755
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.29100123 -0.06783958
## sample estimates:
## mean of the differences
##              -0.1794204
```

```
wilcox.test(pp.full$deceitfulness.s, pp.full$deceitfulness.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$deceitfulness.s and pp.full$deceitfulness.i
## V = 7274, p-value = 0.0133
## alternative hypothesis: true location shift is not equal to 0
```

```
(3.1701/sqrt(208))
```

```
## [1] 0.2198069
```

```
pnorm(.220)
```

```
## [1] 0.5870644
```

```
(2*pnorm((-abs(.220))/2))
```

```
## [1] 0.9124094
```

```
print(corr.test(pp.full$deceitfulness.s, pp.full$deceitfulness.i, method = "spearman"), short = F, digits =
3)
```

```
## Call:corr.test(x = pp.full$deceitfulness.s, y = pp.full$deceitfulness.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.214
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0.002
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA      0.08 0.214      0.34 0.002      0.08      0.34
```

```
# Base model
pp.full$deceitfulness.s_c = pp.full$deceitfulness.s - mean(pp.full$deceitfulness.s)
pp.full$deceitfulness.i_c = pp.full$deceitfulness.i - mean(pp.full$deceitfulness.s)

dec1 = lm(deceitfulness.i_c ~ 1 + deceitfulness.s_c, data = pp.full)
summary(dec1)
```

```
##
## Call:
## lm(formula = deceitfulness.i_c ~ 1 + deceitfulness.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2451 -0.6045 -0.2002  0.5545  2.2244
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)        0.17942    0.05063   3.544 0.000488 ***
## deceitfulness.s_c  0.35589    0.08875   4.010 8.49e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7302 on 206 degrees of freedom
## Multiple R-squared:  0.07241,    Adjusted R-squared:  0.0679
## F-statistic: 16.08 on 1 and 206 DF,  p-value: 8.491e-05
```

```
round(confint(dec1), 3)
```

```
##                   2.5 % 97.5 %
## (Intercept)       0.080  0.279
## deceitfulness.s_c 0.181  0.531
```

```
# Moderation model

dec2 = lm(deceitfulness.i_c ~ deceitfulness.s_c*gen.z, data = pp.full)
summary(dec2)
```

```
##
## Call:
## lm(formula = deceitfulness.i_c ~ deceitfulness.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.4335 -0.4802 -0.1606  0.4691  2.3377
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)              0.16922    0.04953   3.416 0.000766 ***
## deceitfulness.s_c        0.10164    0.09620   1.057 0.291957
## gen.z                    0.31877    0.05145   6.196 3.14e-09 ***
## deceitfulness.s_c:gen.z  0.04309    0.07110   0.606 0.545163
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6718 on 204 degrees of freedom
## Multiple R-squared:  0.2224, Adjusted R-squared:  0.211
## F-statistic: 19.45 on 3 and 204 DF,  p-value: 3.932e-11
```

```
round(confint(dec2), 3)
```

```
##                          2.5 % 97.5 %
## (Intercept)              0.072  0.267
## deceitfulness.s_c       -0.088  0.291
## gen.z                    0.217  0.420
## deceitfulness.s_c:gen.z -0.097  0.183
```

```
anova(dec1, dec2)
```

```
## Analysis of Variance Table
##
## Model 1: deceitfulness.i_c ~ 1 + deceitfulness.s_c
## Model 2: deceitfulness.i_c ~ deceitfulness.s_c * gen.z
##   Res.Df     RSS Df Sum of Sq     F    Pr(>F)
## 1    206 109.835
## 2    204  92.071  2    17.764 19.68 1.531e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Depressivity ##

t.test(pp.full$depressivity.s, pp.full$depressivity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$depressivity.s and pp.full$depressivity.i
## t = -2.7026, df = 206, p-value = 0.007453
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.19341208 -0.03025154
## sample estimates:
## mean of the differences
##              -0.1118318
```

```r
wilcox.test(pp.full$depressivity.s, pp.full$depressivity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$depressivity.s and pp.full$depressivity.i
## V = 6513, p-value = 0.02635
## alternative hypothesis: true location shift is not equal to 0
```

```r
(2.7026/sqrt(207))
```

```
## [1] 0.1878437
```

```r
pnorm(.188)
```

```
## [1] 0.5745617
```

```r
(2*pnorm((-abs(.188))/2))
```

```
## [1] 0.9251092
```

```r
print(corr.test(pp.full$depressivity.s, pp.full$depressivity.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$depressivity.s, y = pp.full$depressivity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.527
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##        raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.421 0.527     0.619     0     0.421     0.619
```

```r
# Base model
pp.full$depressivity.s_c = pp.full$depressivity.s - mean(pp.full$depressivity.s)
pp.full$depressivity.i_c = pp.full$depressivity.i - mean(pp.full$depressivity.s)

dep1 = lm(depressivity.i_c ~ 1 + depressivity.s_c, data = pp.full)
summary(dep1)
```

```
##
## Call:
## lm(formula = depressivity.i_c ~ 1 + depressivity.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.1901 -0.3590 -0.1310  0.2852  2.2893
##
## Coefficients:
##                  Estimate Std. Error t value Pr(>|t|)
## (Intercept)       0.11295    0.03711   3.044  0.00264 **
## depressivity.s_c  0.55768    0.06185   9.017  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5339 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.284,  Adjusted R-squared:  0.2805
## F-statistic: 81.31 on 1 and 205 DF,  p-value: < 2.2e-16
```

```r
round(confint(dep1), 3)
```

```
##                  2.5 % 97.5 %
## (Intercept)      0.040  0.186
## depressivity.s_c 0.436  0.680
```

```r
# Moderation model
dep2 = lm(depressivity.i_c ~ depressivity.s_c*gen.z, data = pp.full)
summary(dep2)
```

```
##
## Call:
## lm(formula = depressivity.i_c ~ depressivity.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0156 -0.3305 -0.1261  0.2839  1.7885
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)             0.112607   0.038214   2.947  0.00359 **
## depressivity.s_c        0.358520   0.074031   4.843 2.53e-06 ***
## gen.z                   0.235783   0.040525   5.818 2.29e-08 ***
## depressivity.s_c:gen.z -0.002949   0.053713  -0.055  0.95628
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4967 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.3864, Adjusted R-squared:  0.3774
## F-statistic: 42.62 on 3 and 203 DF,  p-value: < 2.2e-16
```

```r
round(coef(dep2), 3)
```

```
##            (Intercept)       depressivity.s_c                  gen.z
##                  0.113                  0.359                  0.236
## depressivity.s_c:gen.z
##                 -0.003
```

```r
round(confint(dep2), 3)
```

```
##                            2.5 % 97.5 %
## (Intercept)                0.037  0.188
## depressivity.s_c           0.213  0.504
## gen.z                      0.156  0.316
## depressivity.s_c:gen.z -0.109  0.103
```

```r
anova(dep1, dep2)
```

```
## Analysis of Variance Table
##
## Model 1: depressivity.i_c ~ 1 + depressivity.s_c
## Model 2: depressivity.i_c ~ depressivity.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    205 58.432
## 2    203 50.073  2    8.3595 16.945 1.564e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Distractibility ##

t.test(pp.full$distractibility.s, pp.full$distractibility.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$distractibility.s and pp.full$distractibility.i
## t = -4.1399, df = 207, p-value = 5.057e-05
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3076019 -0.1091411
## sample estimates:
## mean of the differences
##              -0.2083715
```

```r
wilcox.test(pp.full$distractibility.s, pp.full$distractibility.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$distractibility.s and pp.full$distractibility.i
## V = 6438, p-value = 0.0001688
## alternative hypothesis: true location shift is not equal to 0
```

```r
(4.1399/sqrt(208))
```

```
## [1] 0.2870504
```

```r
pnorm(.287)
```

```
## [1] 0.6129438
```

```r
(2*pnorm((-abs(.287))/2))
```

```
## [1] 0.8858953
```

```r
print(corr.test(pp.full$distractibility.s, pp.full$distractibility.i, method = "spearman"), short = F, digit
s = 3)
```

```
## Call:corr.test(x = pp.full$distractibility.s, y = pp.full$distractibility.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.46
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.346  0.46     0.561     0     0.346     0.561
```

```
# Base model
pp.full$distractibility.s_c = pp.full$distractibility.s - mean(pp.full$distractibility.s)
pp.full$distractibility.i_c = pp.full$distractibility.i - mean(pp.full$distractibility.s)

dist1 = lm(distractibility.i_c ~ 1 + distractibility.s_c, data = pp.full)
summary(dist1)
```

```
##
## Call:
## lm(formula = distractibility.i_c ~ 1 + distractibility.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.30781 -0.45801 -0.05984  0.45232  1.82905
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)          0.20837    0.04332   4.810 2.91e-06 ***
## distractibility.s_c  0.48175    0.06046   7.968 1.08e-13 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6247 on 206 degrees of freedom
## Multiple R-squared:  0.2356, Adjusted R-squared:  0.2319
## F-statistic: 63.49 on 1 and 206 DF,  p-value: 1.084e-13
```

```
round(confint(dist1), 3)
```

```
##                     2.5 % 97.5 %
## (Intercept)         0.123  0.294
## distractibility.s_c 0.363  0.601
```

```
# Moderation model
dist2 = lm(distractibility.i_c ~ distractibility.s_c*gen.z, data = pp.full)
summary(dist2)
```

```
##
## Call:
## lm(formula = distractibility.i_c ~ distractibility.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.25795 -0.42481 -0.06599  0.41879  2.00644
##
## Coefficients:
##                           Estimate Std. Error t value Pr(>|t|)
## (Intercept)                0.22846    0.04592   4.975 1.38e-06 ***
## distractibility.s_c        0.41241    0.06568   6.279 2.01e-09 ***
## gen.z                      0.14833    0.04777   3.105  0.00217 **
## distractibility.s_c:gen.z -0.06802    0.05884  -1.156  0.24903
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.613 on 204 degrees of freedom
## Multiple R-squared:  0.2711, Adjusted R-squared:  0.2604
## F-statistic: 25.29 on 3 and 204 DF,  p-value: 5.939e-14
```

```
round(coef(dist2), 3)
```

```
##               (Intercept)       distractibility.s_c
##                     0.228                     0.412
##                     gen.z distractibility.s_c:gen.z
##                     0.148                    -0.068
```

```
round(confint(dist2), 3)
```

```
##                            2.5 % 97.5 %
## (Intercept)                0.138  0.319
## distractibility.s_c        0.283  0.542
## gen.z                      0.054  0.243
## distractibility.s_c:gen.z -0.184  0.048
```

```
anova(dist1, dist2)
```

```
## Analysis of Variance Table
##
## Model 1: distractibility.i_c ~ 1 + distractibility.s_c
## Model 2: distractibility.i_c ~ distractibility.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F   Pr(>F)
## 1    206 80.402
## 2    204 76.668  2    3.7337 4.9674 0.007827 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Eccentricity ##

t.test(pp.full$eccentricity.s, pp.full$eccentricity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$eccentricity.s and pp.full$eccentricity.i
## t = -2.4923, df = 205, p-value = 0.01348
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.26106255 -0.03045419
## sample estimates:
## mean of the differences
##              -0.1457584
```

```
wilcox.test(pp.full$eccentricity.s, pp.full$eccentricity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$eccentricity.s and pp.full$eccentricity.i
## V = 6857, p-value = 0.02963
## alternative hypothesis: true location shift is not equal to 0
```

```
(2.4923/sqrt(206))
```

```
## [1] 0.1736468
```

```
pnorm(.174)
```

```
## [1] 0.5690673
```

```
(2*pnorm((-abs(.174))/2))
```

```
## [1] 0.9306715
```

```
print(corr.test(pp.full$eccentricity.s, pp.full$eccentricity.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$eccentricity.s, y = pp.full$eccentricity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.227
## Sample Size
## [1] 206
## Probability values  adjusted for multiple tests.
## [1] 0.001
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.094 0.227     0.353 0.001     0.094     0.353
```

```
# Base model
pp.full$eccentricity.s_c = pp.full$eccentricity.s - mean(pp.full$eccentricity.s)
pp.full$eccentricity.i_c = pp.full$eccentricity.i - mean(pp.full$eccentricity.s)

ecc1 = lm(eccentricity.i_c ~ 1 + eccentricity.s_c, data = pp.full)
summary(ecc1)
```

```
##
## Call:
## lm(formula = eccentricity.i_c ~ 1 + eccentricity.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0667 -0.6072 -0.1983  0.5086  1.7148
##
## Coefficients:
##                  Estimate Std. Error t value Pr(>|t|)
## (Intercept)       0.15007    0.04747   3.161 0.001810 **
## eccentricity.s_c  0.25798    0.07168   3.599 0.000401 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6813 on 204 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.0597, Adjusted R-squared:  0.05509
## F-statistic: 12.95 on 1 and 204 DF,  p-value: 0.0004012
```

```r
round(confint(ecc1), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)      0.056  0.244
## eccentricity.s_c 0.117  0.399
```

```r
# Moderation model
ecc2 = lm(eccentricity.i_c ~ eccentricity.s_c*gen.z, data = pp.full)
summary(ecc2)
```

```
##
## Call:
## lm(formula = eccentricity.i_c ~ eccentricity.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2599 -0.5295 -0.1501  0.4842  1.5048
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)              0.15515    0.04671   3.322  0.00106 **
## eccentricity.s_c         0.15285    0.07165   2.133  0.03411 *
## gen.z                    0.25134    0.04759   5.281  3.3e-07 ***
## eccentricity.s_c:gen.z -0.03628    0.06938  -0.523  0.60159
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6417 on 202 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.174,  Adjusted R-squared:  0.1618
## F-statistic: 14.19 on 3 and 202 DF,  p-value: 1.989e-08
```

```r
round(confint(ecc2), 3)
```

```
##                          2.5 % 97.5 %
## (Intercept)              0.063  0.247
## eccentricity.s_c         0.012  0.294
## gen.z                    0.158  0.345
## eccentricity.s_c:gen.z -0.173  0.101
```

```r
anova(ecc1, ecc2)
```

```
## Analysis of Variance Table
##
## Model 1: eccentricity.i_c ~ 1 + eccentricity.s_c
## Model 2: eccentricity.i_c ~ eccentricity.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    204 94.698
## 2    202 83.182  2    11.516 13.983 2.053e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Emotional lability ##

t.test(pp.full$emotionallability.s, pp.full$emotionallability.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$emotionallability.s and pp.full$emotionallability.i
## t = -1.8978, df = 206, p-value = 0.05912
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.23967332  0.00456865
## sample estimates:
## mean of the differences
##              -0.1175523
```

```
wilcox.test(pp.full$emotionallability.s, pp.full$emotionallability.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$emotionallability.s and pp.full$emotionallability.i
## V = 7488, p-value = 0.1577
## alternative hypothesis: true location shift is not equal to 0
```

```
(1.8978/sqrt(207))
```

```
## [1] 0.1319062
```

```
pnorm(.132)
```

```
## [1] 0.5525079
```

```
(2*pnorm((-abs(.132))/2))
```

```
## [1] 0.9473778
```

```
print(corr.test(pp.full$emotionallability.s, pp.full$emotionallability.i, method = "spearman"), short = F, d
igits = 3)
```

```
## Call:corr.test(x = pp.full$emotionallability.s, y = pp.full$emotionallability.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.343
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.217 0.343     0.458     0     0.217     0.458
```

```
# Base model
pp.full$emotionallability.s_c = pp.full$emotionallability.s - mean(pp.full$emotionallability.s)
pp.full$emotionallability.i_c = pp.full$emotionallability.i - mean(pp.full$emotionallability.s)

emot1 = lm(emotionallability.i_c ~ 1 + emotionallability.s_c, data = pp.full)
summary(emot1)
```

```
##
## Call:
## lm(formula = emotionallability.i_c ~ 1 + emotionallability.s_c,
##     data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.5040 -0.5956 -0.1798  0.5735  2.3262
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            0.11279    0.05322   2.119   0.0353 *
## emotionallability.s_c  0.36321    0.07398   4.910 1.86e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7656 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.1052, Adjusted R-squared:  0.1008
## F-statistic:  24.1 on 1 and 205 DF,  p-value: 1.86e-06
```

```
round(confint(emot1), 3)
```

```
##                       2.5 % 97.5 %
## (Intercept)           0.008  0.218
## emotionallability.s_c 0.217  0.509
```

```
# Moderation model
emot2 = lm(emotionallability.i_c ~ emotionallability.s_c*gen.z, data = pp.full)
summary(emot2)
```

```
##
## Call:
## lm(formula = emotionallability.i_c ~ emotionallability.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.6976 -0.5070 -0.1617  0.4952  2.1684
##
## Coefficients:
##                             Estimate Std. Error t value Pr(>|t|)
## (Intercept)                  0.11977    0.05356   2.236   0.0264 *
## emotionallability.s_c        0.18122    0.07555   2.399   0.0174 *
## gen.z                        0.33044    0.05487   6.023 7.93e-09 ***
## emotionallability.s_c:gen.z -0.02660    0.07166  -0.371   0.7109
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7078 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.2427, Adjusted R-squared:  0.2315
## F-statistic: 21.68 on 3 and 203 DF,  p-value: 3.192e-12
```

```
round(confint(emot2), 3)
```

```
##                              2.5 % 97.5 %
## (Intercept)                  0.014  0.225
## emotionallability.s_c        0.032  0.330
## gen.z                        0.222  0.439
## emotionallability.s_c:gen.z -0.168  0.115
```

```
anova(emot1, emot2)
```

```
## Analysis of Variance Table
##
## Model 1: emotionallability.i_c ~ 1 + emotionallability.s_c
## Model 2: emotionallability.i_c ~ emotionallability.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    205 120.17
## 2    203 101.71  2     18.46 18.422 4.448e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Grandiosity ##

t.test(pp.full$grandiosity.s, pp.full$grandiosity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$grandiosity.s and pp.full$grandiosity.i
## t = -2.6954, df = 207, p-value = 0.007608
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.25555206 -0.03964025
## sample estimates:
## mean of the differences
##              -0.1475962
```

```
wilcox.test(pp.full$grandiosity.s, pp.full$grandiosity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$grandiosity.s and pp.full$grandiosity.i
## V = 5991, p-value = 0.01478
## alternative hypothesis: true location shift is not equal to 0
```

```
(2.6954/sqrt(208))
```

```
## [1] 0.1868924
```

```
pnorm(.187)
```

```
## [1] 0.5741697
```

```
(2*pnorm((-abs(.187))/2))
```

```
## [1] 0.9255063
```

```
print(corr.test(pp.full$grandiosity.s, pp.full$grandiosity.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$grandiosity.s, y = pp.full$grandiosity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.289
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.159 0.289     0.409     0     0.159     0.409
```

```r
# Base model
pp.full$grandiosity.s_c = pp.full$grandiosity.s - mean(pp.full$grandiosity.s)
pp.full$grandiosity.i_c = pp.full$grandiosity.i - mean(pp.full$grandiosity.s)

gra1 = lm(grandiosity.i_c ~ 1 + grandiosity.s_c, data = pp.full)
summary(gra1)
```

```
##
## Call:
## lm(formula = grandiosity.i_c ~ 1 + grandiosity.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2958 -0.5219 -0.1469  0.4829  2.3162
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)      0.14760    0.04949   2.982  0.00321 **
## grandiosity.s_c  0.38932    0.08870   4.389 1.82e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7138 on 206 degrees of freedom
## Multiple R-squared:  0.08553,	Adjusted R-squared:  0.08109
## F-statistic: 19.27 on 1 and 206 DF,  p-value: 1.816e-05
```

```r
round(confint(gra1), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)     0.050  0.245
## grandiosity.s_c 0.214  0.564
```

```r
# Moderation model

gra2 = lm(grandiosity.i_c ~ grandiosity.s_c*gen.z, data = pp.full)
summary(gra2)
```

```
##
## Call:
## lm(formula = grandiosity.i_c ~ grandiosity.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2806 -0.4977 -0.1599  0.3956  2.3618
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            0.14001    0.04858   2.882  0.00437 **
## grandiosity.s_c        0.26450    0.08903   2.971  0.00332 **
## gen.z                  0.23623    0.04903   4.818 2.83e-06 ***
## grandiosity.s_c:gen.z  0.05030    0.07981   0.630  0.52927
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6787 on 204 degrees of freedom
## Multiple R-squared:  0.1812,	Adjusted R-squared:  0.1691
## F-statistic: 15.04 on 3 and 204 DF,  p-value: 6.973e-09
```

```r
round(confint(gra2), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)            0.044  0.236
## grandiosity.s_c        0.089  0.440
## gen.z                  0.140  0.333
## grandiosity.s_c:gen.z -0.107  0.208
```

```r
anova(gra1, gra2)
```

```
## Analysis of Variance Table
##
## Model 1: grandiosity.i_c ~ 1 + grandiosity.s_c
## Model 2: grandiosity.i_c ~ grandiosity.s_c * gen.z
##   Res.Df     RSS Df Sum of Sq      F    Pr(>F)
## 1    206 104.952
## 2    204  93.977  2    10.974 11.911 1.281e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Hostility ##

t.test(pp.full$hostility.s, pp.full$hostility.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$hostility.s and pp.full$hostility.i
## t = -3.7197, df = 206, p-value = 0.0002572
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.31555246 -0.09692741
## sample estimates:
## mean of the differences
##              -0.2062399
```

```r
wilcox.test(pp.full$hostility.s, pp.full$hostility.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$hostility.s and pp.full$hostility.i
## V = 6970.5, p-value = 0.002101
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.7197/sqrt(207))
```

```
## [1] 0.258537
```

```r
pnorm(.259)
```

```
## [1] 0.6021824
```

```r
(2*pnorm((-abs(.259))/2))
```

```
## [1] 0.896962
```

```r
print(corr.test(pp.full$hostility.s, pp.full$hostility.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$hostility.s, y = pp.full$hostility.i, method = "spearman")
## Correlation matrix
## [1] 0.336
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.209 0.336     0.452     0     0.209     0.452
```

```r
# Base model
pp.full$hostility.s_c = pp.full$hostility.s - mean(pp.full$hostility.s, na.rm = T)
pp.full$hostility.i_c = pp.full$hostility.i - mean(pp.full$hostility.s, na.rm = T)

hos1 = lm(hostility.i_c ~ 1 + hostility.s_c, data = pp.full)
summary(hos1)
```

```
##
## Call:
## lm(formula = hostility.i_c ~ 1 + hostility.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2284 -0.5853 -0.1445  0.4864  2.0764
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.20624    0.04943   4.172 4.46e-05 ***
## hostility.s_c  0.38263    0.08390   4.561 8.77e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7112 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.09211,    Adjusted R-squared:  0.08768
## F-statistic:  20.8 on 1 and 205 DF,  p-value: 8.77e-06
```

```r
round(confint(hos1), 3)
```

```
##               2.5 % 97.5 %
## (Intercept)   0.109  0.304
## hostility.s_c 0.217  0.548
```

```r
# Moderation model
hos2 = lm(hostility.i_c ~ hostility.s_c*gen.z, data = pp.full)
summary(hos2)
```

```
##
## Call:
## lm(formula = hostility.i_c ~ hostility.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.16947 -0.47734 -0.09274  0.40610  2.04132
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)          0.214757   0.047774   4.495 1.17e-05 ***
## hostility.s_c       -0.069493   0.097300  -0.714    0.476
## gen.z                0.456962   0.054595   8.370 9.30e-15 ***
## hostility.s_c:gen.z -0.006877   0.060940  -0.113    0.910
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6162 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.3252, Adjusted R-squared:  0.3152
## F-statistic:  32.6 on 3 and 203 DF,  p-value: < 2.2e-16
```

```r
round(confint(hos2), 3)
```

```
##                      2.5 % 97.5 %
## (Intercept)          0.121  0.309
## hostility.s_c       -0.261  0.122
## gen.z                0.349  0.565
## hostility.s_c:gen.z -0.127  0.113
```

```r
anova(hos1, hos2)
```

```
## Analysis of Variance Table
##
## Model 1: hostility.i_c ~ 1 + hostility.s_c
## Model 2: hostility.i_c ~ hostility.s_c * gen.z
##   Res.Df     RSS Df Sum of Sq      F    Pr(>F)
## 1    205 103.698
## 2    203  77.079  2    26.619 35.052 8.384e-14 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Impulsivity ##

t.test(pp.full$impulsivity.s, pp.full$impulsivity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$impulsivity.s and pp.full$impulsivity.i
## t = -5.013, df = 205, p-value = 1.157e-06
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3632047 -0.1581545
## sample estimates:
## mean of the differences
##              -0.2606796
```

```r
wilcox.test(pp.full$impulsivity.s, pp.full$impulsivity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$impulsivity.s and pp.full$impulsivity.i
## V = 5444, p-value = 2.676e-06
## alternative hypothesis: true location shift is not equal to 0
```

```r
(5.013/sqrt(206))
```

```
## [1] 0.3492723
```

```r
pnorm(.349)
```

```
## [1] 0.6364553
```

```r
(2*pnorm((-abs(.349))/2))
```

```
## [1] 0.8614725
```

```r
print(corr.test(pp.full$impulsivity.s, pp.full$impulsivity.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$impulsivity.s, y = pp.full$impulsivity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.495
## Sample Size
## [1] 206
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.384 0.495     0.592     0     0.384     0.592
```

```
# Base model
pp.full$impulsivity.s_c = pp.full$impulsivity.s - mean(pp.full$impulsivity.s)
pp.full$impulsivity.i_c = pp.full$impulsivity.i - mean(pp.full$impulsivity.s)

im1 = lm(impulsivity.i_c ~ 1 + impulsivity.s_c, data = pp.full)
summary(im1)
```

```
##
## Call:
## lm(formula = impulsivity.i_c ~ 1 + impulsivity.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.43592 -0.51150 -0.09655  0.48075  1.90431
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)      0.26271    0.04543   5.782 2.73e-08 ***
## impulsivity.s_c  0.50517    0.06159   8.203 2.61e-14 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6521 on 204 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.248,  Adjusted R-squared:  0.2443
## F-statistic: 67.28 on 1 and 204 DF,  p-value: 2.609e-14
```

```
round(confint(im1), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)     0.173  0.352
## impulsivity.s_c 0.384  0.627
```

```
# Moderation model
im2 = lm(impulsivity.i_c ~ impulsivity.s_c*gen.z, data = pp.full)
summary(im2)
```

```
##
## Call:
## lm(formula = impulsivity.i_c ~ impulsivity.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.56847 -0.46728 -0.05301  0.43632  1.73947
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            0.27700    0.04587   6.038 7.35e-09 ***
## impulsivity.s_c        0.47053    0.06377   7.379 4.07e-12 ***
## gen.z                  0.14173    0.04663   3.039  0.00268 **
## impulsivity.s_c:gen.z -0.07298    0.05448  -1.340  0.18190
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6394 on 202 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.284,  Adjusted R-squared:  0.2734
## F-statistic: 26.71 on 3 and 202 DF,  p-value: 1.357e-14
```

```
round(confint(im2), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)            0.187  0.367
## impulsivity.s_c        0.345  0.596
## gen.z                  0.050  0.234
## impulsivity.s_c:gen.z -0.180  0.034
```

```
anova(im1, im2)
```

```
## Analysis of Variance Table
##
## Model 1: impulsivity.i_c ~ 1 + impulsivity.s_c
## Model 2: impulsivity.i_c ~ impulsivity.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F   Pr(>F)
## 1    204 86.744
## 2    202 82.589  2    4.1545 5.0806 0.007035 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Intimacy avoidance ##

t.test(pp.full$intimacyavoidance.s, pp.full$intimacyavoidance.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$intimacyavoidance.s and pp.full$intimacyavoidance.i
## t = -3.1742, df = 202, p-value = 0.001737
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.25981606 -0.06070939
## sample estimates:
## mean of the differences
##              -0.1602627
```

```
wilcox.test(pp.full$intimacyavoidance.s, pp.full$intimacyavoidance.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$intimacyavoidance.s and pp.full$intimacyavoidance.i
## V = 5904.5, p-value = 0.001364
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.1742/sqrt(203))
```

```
## [1] 0.2227852
```

```r
pnorm(.223)
```

```
## [1] 0.5882322
```

```r
(2*pnorm((-abs(.223))/2))
```

```
## [1] 0.9112199
```

```r
print(corr.test(pp.full$intimacyavoidance.s, pp.full$intimacyavoidance.i, method = "spearman"), short = F, d
igits = 3)
```

```
## Call:corr.test(x = pp.full$intimacyavoidance.s, y = pp.full$intimacyavoidance.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.262
## Sample Size
## [1] 203
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##        raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA      0.128 0.262     0.385     0     0.128     0.385
```

```r
# Base model
pp.full$intimacyavoidance.s_c = pp.full$intimacyavoidance.s - mean(pp.full$intimacyavoidance.s, na.rm = T)
pp.full$intimacyavoidance.i_c = pp.full$intimacyavoidance.i - mean(pp.full$intimacyavoidance.s, na.rm = T)

int1 = lm(intimacyavoidance.i_c ~ 1 + intimacyavoidance.s_c, data = pp.full)
summary(int1)
```

```
##
## Call:
## lm(formula = intimacyavoidance.i_c ~ 1 + intimacyavoidance.s_c,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.25120 -0.51864 -0.07969  0.37913  2.29822
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            0.15698    0.04249   3.695 0.000283 ***
## intimacyavoidance.s_c  0.36628    0.06902   5.307 2.94e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6053 on 201 degrees of freedom
##   (5 observations deleted due to missingness)
## Multiple R-squared:  0.1229, Adjusted R-squared:  0.1185
## F-statistic: 28.16 on 1 and 201 DF,  p-value: 2.938e-07
```

```r
round(confint(int1), 3)
```

```
##                       2.5 % 97.5 %
## (Intercept)           0.073  0.241
## intimacyavoidance.s_c 0.230  0.502
```

```r
# Moderation model
int2 = lm(intimacyavoidance.i_c ~ intimacyavoidance.s_c*gen.z, data = pp.full)
summary(int2)
```

```
##
## Call:
## lm(formula = intimacyavoidance.i_c ~ intimacyavoidance.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.3089 -0.4422 -0.1005  0.4351  2.2270
##
## Coefficients:
##                              Estimate Std. Error t value Pr(>|t|)
## (Intercept)                   0.14846    0.04286   3.464 0.000651 ***
## intimacyavoidance.s_c         0.24514    0.07644   3.207 0.001564 **
## gen.z                         0.18465    0.04622   3.995  9.1e-05 ***
## intimacyavoidance.s_c:gen.z  0.02563    0.05575   0.460 0.646243
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5843 on 199 degrees of freedom
##   (5 observations deleted due to missingness)
## Multiple R-squared:  0.1908, Adjusted R-squared:  0.1786
## F-statistic: 15.64 on 3 and 199 DF,  p-value: 3.586e-09
```

```r
round(confint(int2), 3)
```

```
##                              2.5 % 97.5 %
## (Intercept)                  0.064  0.233
## intimacyavoidance.s_c        0.094  0.396
## gen.z                        0.094  0.276
## intimacyavoidance.s_c:gen.z -0.084  0.136
```

```r
anova(int1, int2)
```

```
## Analysis of Variance Table
##
## Model 1: intimacyavoidance.i_c ~ 1 + intimacyavoidance.s_c
## Model 2: intimacyavoidance.i_c ~ intimacyavoidance.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    201 73.644
## 2    199 67.943  2    5.7009 8.3487 0.0003299 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Irresponsibility ##

t.test(pp.full$irresponsibility.s, pp.full$irresponsibility.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$irresponsibility.s and pp.full$irresponsibility.i
## t = -5.8829, df = 206, p-value = 1.611e-08
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3203450 -0.1595261
## sample estimates:
## mean of the differences
##              -0.2399356
```

```r
wilcox.test(pp.full$irresponsibility.s, pp.full$irresponsibility.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$irresponsibility.s and pp.full$irresponsibility.i
## V = 4160.5, p-value = 8.165e-08
## alternative hypothesis: true location shift is not equal to 0
```

```
(5.8829/sqrt(207))
```

```
## [1] 0.4088898
```

```
pnorm(.409)
```

```
## [1] 0.6587302
```

```
(2*pnorm((-abs(.409))/2))
```

```
## [1] 0.8379628
```

```
print(corr.test(pp.full$irresponsibility.s, pp.full$irresponsibility.i, method = "spearman"), short = F, dig
its = 3)
```

```
## Call:corr.test(x = pp.full$irresponsibility.s, y = pp.full$irresponsibility.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.479
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.366 0.479     0.577     0     0.366     0.577
```

```
# Base model
pp.full$irresponsibility.s_c = pp.full$irresponsibility.s - mean(pp.full$irresponsibility.s)
pp.full$irresponsibility.i_c = pp.full$irresponsibility.i - mean(pp.full$irresponsibility.s)

ir1 = lm(irresponsibility.i_c ~ 1 + irresponsibility.s_c, data = pp.full)
summary(ir1)
```

```
##
## Call:
## lm(formula = irresponsibility.i_c ~ 1 + irresponsibility.s_c,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.21372 -0.45896 -0.03039  0.37014  1.57517
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.23929    0.03782   6.327 1.55e-09 ***
## irresponsibility.s_c  0.58704    0.07027   8.354 9.90e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5442 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.254,  Adjusted R-squared:  0.2503
## F-statistic: 69.78 on 1 and 205 DF,  p-value: 9.901e-15
```

```
round(confint(ir1), 3)
```

```
##                        2.5 % 97.5 %
## (Intercept)           0.165  0.314
## irresponsibility.s_c 0.448  0.726
```

```
# Moderation model
ir2 = lm(irresponsibility.i_c ~ irresponsibility.s_c*gen.z, data = pp.full)
summary(ir2)
```

```
##
## Call:
## lm(formula = irresponsibility.i_c ~ irresponsibility.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.06810 -0.40146 -0.01102  0.33321  1.32881
##
## Coefficients:
##                              Estimate Std. Error t value Pr(>|t|)
## (Intercept)                   0.25399    0.03902   6.510 5.79e-10 ***
## irresponsibility.s_c         0.49682    0.08053   6.169 3.66e-09 ***
## gen.z                         0.16252    0.04073   3.990 9.24e-05 ***
## irresponsibility.s_c:gen.z -0.07095    0.06013  -1.180    0.239
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5256 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.3107, Adjusted R-squared:  0.3005
## F-statistic:  30.5 on 3 and 203 DF,  p-value: 2.539e-16
```

```
round(confint(ir2), 3)
```

```
##                              2.5 % 97.5 %
## (Intercept)                   0.177  0.331
## irresponsibility.s_c         0.338  0.656
## gen.z                         0.082  0.243
## irresponsibility.s_c:gen.z -0.190  0.048
```

```
anova(ir1, ir2)
```

```
## Analysis of Variance Table
##
## Model 1: irresponsibility.i_c ~ 1 + irresponsibility.s_c
## Model 2: irresponsibility.i_c ~ irresponsibility.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    205 60.705
## 2    203 56.085  2    4.6197 8.3604 0.0003243 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Manipulativeness ##

t.test(pp.full$manipulativeness.s, pp.full$manipulativeness.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$manipulativeness.s and pp.full$manipulativeness.i
## t = -3.3291, df = 207, p-value = 0.001031
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.34063790 -0.08724672
## sample estimates:
## mean of the differences
##              -0.2139423
```

```r
wilcox.test(pp.full$manipulativeness.s, pp.full$manipulativeness.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$manipulativeness.s and pp.full$manipulativeness.i
## V = 6565, p-value = 0.003751
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.3291/sqrt(208))
```

```
## [1] 0.2308316
```

```r
pnorm(.231)
```

```
## [1] 0.5913426
```

```r
(2*pnorm((-abs(.231))/2))
```

```
## [1] 0.9080488
```

```r
print(corr.test(pp.full$manipulativeness.s, pp.full$manipulativeness.i, method = "spearman"), short = F, dig
its = 3)
```

```
## Call:corr.test(x = pp.full$manipulativeness.s, y = pp.full$manipulativeness.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.198
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0.004
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.064 0.198     0.325 0.004     0.064     0.325
```

```r
# Base model
pp.full$manipulativeness.s_c = pp.full$manipulativeness.s - mean(pp.full$manipulativeness.s)
pp.full$manipulativeness.i_c = pp.full$manipulativeness.i - mean(pp.full$manipulativeness.s)

mani1 = lm(manipulativeness.i_c ~ 1 + manipulativeness.s_c, data = pp.full)
summary(mani1)
```

```
##
## Call:
## lm(formula = manipulativeness.i_c ~ 1 + manipulativeness.s_c,
##     data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.3723 -0.6447 -0.1085  0.6139  1.9553
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.21394    0.05479   3.905 0.000128 ***
## manipulativeness.s_c  0.29315    0.07963   3.681 0.000296 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7902 on 206 degrees of freedom
## Multiple R-squared:  0.06173,    Adjusted R-squared:  0.05717
## F-statistic: 13.55 on 1 and 206 DF,  p-value: 0.0002963
```

```r
round(confint(mani1), 3)
```

```
##                         2.5 % 97.5 %
## (Intercept)           0.106  0.322
## manipulativeness.s_c 0.136  0.450
```

```r
# Moderation model
mani2 = lm(manipulativeness.i_c ~ manipulativeness.s_c*gen.z, data = pp.full)
summary(mani2)
```

```
##
## Call:
## lm(formula = manipulativeness.i_c ~ manipulativeness.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.51158 -0.59979 -0.04198  0.54442  1.85735
##
## Coefficients:
##                             Estimate Std. Error t value Pr(>|t|)
## (Intercept)                  0.19605    0.05282   3.712 0.000266 ***
## manipulativeness.s_c         0.16849    0.07966   2.115 0.035635 *
## gen.z                        0.26084    0.05358   4.868 2.25e-06 ***
## manipulativeness.s_c:gen.z  0.10860    0.06820   1.592 0.112823
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7444 on 204 degrees of freedom
## Multiple R-squared:  0.1754, Adjusted R-squared:  0.1633
## F-statistic: 14.47 on 3 and 204 DF,  p-value: 1.398e-08
```

```r
round(confint(mani2), 3)
```

```
##                                 2.5 % 97.5 %
## (Intercept)                  0.092  0.300
## manipulativeness.s_c         0.011  0.326
## gen.z                        0.155  0.366
## manipulativeness.s_c:gen.z -0.026  0.243
```

```r
anova(mani1, mani2)
```

```
## Analysis of Variance Table
##
## Model 1: manipulativeness.i_c ~ 1 + manipulativeness.s_c
## Model 2: manipulativeness.i_c ~ manipulativeness.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 128.62
## 2    204 113.03  2    15.585 14.064 1.897e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Perceptual dysregulation ##

t.test(pp.full$perceptualdysregulation.s, pp.full$perceptualdysregulation.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$perceptualdysregulation.s and pp.full$perceptualdysregulation.i
## t = -1.1113, df = 203, p-value = 0.2677
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.13673310  0.03815912
## sample estimates:
## mean of the differences
##             -0.04928699
```

```
wilcox.test(pp.full$perceptualdysregulation.s, pp.full$perceptualdysregulation.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$perceptualdysregulation.s and pp.full$perceptualdysregulation.i
## V = 6349.5, p-value = 0.2885
## alternative hypothesis: true location shift is not equal to 0
```

```
(1.1113/sqrt(204))
```

```
## [1] 0.07780656
```

```
pnorm(.078)
```

```
## [1] 0.531086
```

```
(2*pnorm((-abs(.078))/2))
```

```
## [1] 0.9688904
```

```
print(corr.test(pp.full$perceptualdysregulation.s, pp.full$perceptualdysregulation.i, method = "spearman"),
short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$perceptualdysregulation.s, y = pp.full$perceptualdysregulation.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.307
## Sample Size
## [1] 204
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.177 0.307     0.426     0     0.177     0.426
```

```
# Base model
pp.full$perceptualdysregulation.s_c = pp.full$perceptualdysregulation.s - mean(pp.full$perceptualdysregulati
on.s)
pp.full$perceptualdysregulation.i_c = pp.full$perceptualdysregulation.i - mean(pp.full$perceptualdysregulati
on.s)

per1 = lm(perceptualdysregulation.i_c ~ 1 + perceptualdysregulation.s_c, data = pp.full)
summary(per1)
```

```
##
## Call:
## lm(formula = perceptualdysregulation.i_c ~ 1 + perceptualdysregulation.s_c,
##     data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.8711 -0.3634 -0.1741  0.1700  1.5962
##
## Coefficients:
##                             Estimate Std. Error t value Pr(>|t|)
## (Intercept)                  0.05009    0.03581   1.399 0.163428
## perceptualdysregulation.s_c  0.24281    0.07240   3.354 0.000952 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5115 on 202 degrees of freedom
##   (4 observations deleted due to missingness)
## Multiple R-squared:  0.05275,    Adjusted R-squared:  0.04806
## F-statistic: 11.25 on 1 and 202 DF,  p-value: 0.0009516
```

```
round(confint(per1), 3)
```

```
##                              2.5 % 97.5 %
## (Intercept)                 -0.021  0.121
## perceptualdysregulation.s_c  0.100  0.386
```

```
# Moderation model
per2 = lm(perceptualdysregulation.i_c ~ perceptualdysregulation.s_c*gen.z, data = pp.full)
summary(per2)
```

```
##
## Call:
## lm(formula = perceptualdysregulation.i_c ~ perceptualdysregulation.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.7794 -0.3050 -0.1467  0.1730  1.6453
##
## Coefficients:
##                                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)                        0.06399    0.03577   1.789   0.0751 .
## perceptualdysregulation.s_c        0.17855    0.07853   2.274   0.0240 *
## gen.z                              0.17468    0.03650   4.786  3.3e-06 ***
## perceptualdysregulation.s_c:gen.z -0.10073    0.07563  -1.332   0.1844
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4852 on 200 degrees of freedom
##   (4 observations deleted due to missingness)
## Multiple R-squared:  0.1561, Adjusted R-squared:  0.1434
## F-statistic: 12.33 on 3 and 200 DF,  p-value: 1.963e-07
```

```
round(confint(per2), 3)
```

```
##                                    2.5 % 97.5 %
## (Intercept)                       -0.007  0.135
## perceptualdysregulation.s_c        0.024  0.333
## gen.z                              0.103  0.247
## perceptualdysregulation.s_c:gen.z -0.250  0.048
```

```
anova(per1, per2)
```

```
## Analysis of Variance Table
##
## Model 1: perceptualdysregulation.i_c ~ 1 + perceptualdysregulation.s_c
## Model 2: perceptualdysregulation.i_c ~ perceptualdysregulation.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    202 52.840
## 2    200 47.077  2    5.7632 12.242 9.648e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Perseveration ##

t.test(pp.full$perseveration.s, pp.full$perseveration.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$perseveration.s and pp.full$perseveration.i
## t = -3.382, df = 207, p-value = 0.0008604
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.25064122 -0.06603689
## sample estimates:
## mean of the differences
##              -0.1583391
```

```
wilcox.test(pp.full$perseveration.s, pp.full$perseveration.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$perseveration.s and pp.full$perseveration.i
## V = 6724.5, p-value = 0.001401
## alternative hypothesis: true location shift is not equal to 0
```

```
(3.382/sqrt(208))
```

```
## [1] 0.2344995
```

```
pnorm(.234)
```

```
## [1] 0.5925075
```

```
(2*pnorm((-abs(.234))/2))
```

```
## [1] 0.9068601
```

```
print(corr.test(pp.full$perseveration.s, pp.full$perseveration.i, method = "spearman"), short = F, digits =
3)
```

```
## Call:corr.test(x = pp.full$perseveration.s, y = pp.full$perseveration.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.433
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##        raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA      0.315 0.433     0.537     0     0.315     0.537
```

```r
# Base model
pp.full$perseveration.s_c = pp.full$perseveration.s - mean(pp.full$perseveration.s)
pp.full$perseveration.i_c = pp.full$perseveration.i - mean(pp.full$perseveration.s)

pers1 = lm(perseveration.i_c ~ 1 + perseveration.s_c, data = pp.full)
summary(pers1)
```

```
##
## Call:
## lm(formula = perseveration.i_c ~ 1 + perseveration.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.43072 -0.49192 -0.02761  0.41696  1.53814
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)        0.15834    0.04048   3.912 0.000124 ***
## perseveration.s_c  0.45410    0.06481   7.006 3.41e-11 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5838 on 206 degrees of freedom
## Multiple R-squared:  0.1924, Adjusted R-squared:  0.1885
## F-statistic: 49.09 on 1 and 206 DF,  p-value: 3.413e-11
```

```r
round(confint(pers1), 3)
```

```
##                   2.5 % 97.5 %
## (Intercept)       0.079  0.238
## perseveration.s_c 0.326  0.582
```

```r
# Moderation model
pers2 = lm(perseveration.i_c ~ perseveration.s_c*gen.z, data = pp.full)
summary(pers2)
```

```
##
## Call:
## lm(formula = perseveration.i_c ~ perseveration.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.32291 -0.41588 -0.02321  0.38884  1.48517
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)              0.16357    0.04194   3.900 0.000131 ***
## perseveration.s_c        0.32875    0.06877   4.780 3.35e-06 ***
## gen.z                    0.19238    0.04355   4.418 1.62e-05 ***
## perseveration.s_c:gen.z -0.02000    0.06053  -0.330 0.741413
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5602 on 204 degrees of freedom
## Multiple R-squared:  0.2636, Adjusted R-squared:  0.2528
## F-statistic: 24.34 on 3 and 204 DF,  p-value: 1.665e-13
```

```r
round(confint(pers2), 3)
```

```
##                          2.5 % 97.5 %
## (Intercept)              0.081  0.246
## perseveration.s_c        0.193  0.464
## gen.z                    0.107  0.278
## perseveration.s_c:gen.z -0.139  0.099
```

```r
anova(pers1, pers2)
```

```
## Analysis of Variance Table
##
## Model 1: perseveration.i_c ~ 1 + perseveration.s_c
## Model 2: perseveration.i_c ~ perseveration.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq     F    Pr(>F)
## 1    206 70.202
## 2    204 64.018  2    6.1846 9.854 8.218e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Restricted affectivity ##

t.test(pp.full$restrictedaffectivity.s, pp.full$restrictedaffectivity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$restrictedaffectivity.s and pp.full$restrictedaffectivity.i
## t = -6.0661, df = 206, p-value = 6.184e-09
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.4279531 -0.2180097
## sample estimates:
## mean of the differences
##              -0.3229814
```

```
wilcox.test(pp.full$restrictedaffectivity.s, pp.full$restrictedaffectivity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$restrictedaffectivity.s and pp.full$restrictedaffectivity.i
## V = 5334.5, p-value = 2.204e-08
## alternative hypothesis: true location shift is not equal to 0
```

```
(6.0661/sqrt(207))
```

```
## [1] 0.4216231
```

```
pnorm(.422)
```

```
## [1] 0.6634875
```

```
(2*pnorm((-abs(.422))/2))
```

```
## [1] 0.8328873
```

```
print(corr.test(pp.full$restrictedaffectivity.s, pp.full$restrictedaffectivity.i, method = "spearman"), shor
t = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$restrictedaffectivity.s, y = pp.full$restrictedaffectivity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.203
## Sample Size
## [1] 207
## Probability values  adjusted for multiple tests.
## [1] 0.003
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.069 0.203      0.33 0.003     0.069      0.33
```

```r
# Base model
pp.full$restrictedaffectivity.s_c = pp.full$restrictedaffectivity.s - mean(pp.full$restrictedaffectivity.s)
pp.full$restrictedaffectivity.i_c = pp.full$restrictedaffectivity.i - mean(pp.full$restrictedaffectivity.s)

res1 = lm(restrictedaffectivity.i_c ~ 1 + restrictedaffectivity.s_c, data = pp.full)
summary(res1)
```

```
##
## Call:
## lm(formula = restrictedaffectivity.i_c ~ 1 + restrictedaffectivity.s_c,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.18496 -0.44854 -0.02106  0.38702  1.98004
##
## Coefficients:
##                           Estimate Std. Error t value Pr(>|t|)
## (Intercept)                0.32565    0.04507   7.226 9.62e-12 ***
## restrictedaffectivity.s_c  0.28681    0.07849   3.654 0.000328 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6484 on 205 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.06115,    Adjusted R-squared:  0.05657
## F-statistic: 13.35 on 1 and 205 DF,  p-value: 0.0003279
```

```r
round(confint(res1), 3)
```

```
##                           2.5 % 97.5 %
## (Intercept)               0.237  0.414
## restrictedaffectivity.s_c 0.132  0.442
```

```r
# Moderation model
res2 = lm(restrictedaffectivity.i_c ~ restrictedaffectivity.s_c*gen.z, data = pp.full)
summary(res2)
```

```
##
## Call:
## lm(formula = restrictedaffectivity.i_c ~ restrictedaffectivity.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.22323 -0.42525 -0.04537  0.38040  1.94791
##
## Coefficients:
##                                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)                      0.34158    0.04626   7.384 3.89e-12 ***
## restrictedaffectivity.s_c        0.23404    0.08270   2.830  0.00512 **
## gen.z                            0.14428    0.04682   3.082  0.00234 **
## restrictedaffectivity.s_c:gen.z -0.09613    0.07916  -1.214  0.22601
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6354 on 203 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.107,  Adjusted R-squared:  0.09385
## F-statistic: 8.111 on 3 and 203 DF,  p-value: 3.964e-05
```

```r
round(confint(res2), 3)
```

```
##                                  2.5 % 97.5 %
## (Intercept)                      0.250  0.433
## restrictedaffectivity.s_c        0.071  0.397
## gen.z                            0.052  0.237
## restrictedaffectivity.s_c:gen.z -0.252  0.060
```

```
anova(res1, res2)
```

```
## Analysis of Variance Table
##
## Model 1: restrictedaffectivity.i_c ~ 1 + restrictedaffectivity.s_c
## Model 2: restrictedaffectivity.i_c ~ restrictedaffectivity.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F   Pr(>F)
## 1    205 86.178
## 2    203 81.965  2    4.2124 5.2164 0.006178 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Rigid perfectionism ##

t.test(pp.full$rigidperfectionism.s, pp.full$rigidperfectionism.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$rigidperfectionism.s and pp.full$rigidperfectionism.i
## t = -1.1566, df = 207, p-value = 0.2488
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.17127833  0.04462235
## sample estimates:
## mean of the differences
##             -0.06332799
```

```
wilcox.test(pp.full$rigidperfectionism.s, pp.full$rigidperfectionism.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$rigidperfectionism.s and pp.full$rigidperfectionism.i
## V = 9063, p-value = 0.2286
## alternative hypothesis: true location shift is not equal to 0
```

```
(1.1566/sqrt(208))
```

```
## [1] 0.08019578
```

```
pnorm(.080)
```

```
## [1] 0.5318814
```

```
(2*pnorm((-abs(.080))/2))
```

```
## [1] 0.9680931
```

```
print(corr.test(pp.full$rigidperfectionism.s, pp.full$rigidperfectionism.i, method = "spearman"), short = F,
digits = 3)
```

```
## Call:corr.test(x = pp.full$rigidperfectionism.s, y = pp.full$rigidperfectionism.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.296
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.167 0.296     0.415     0     0.167     0.415
```

```
# Base model
pp.full$rigidperfectionism.s_c = pp.full$rigidperfectionism.s - mean(pp.full$rigidperfectionism.s)
pp.full$rigidperfectionism.i_c = pp.full$rigidperfectionism.i - mean(pp.full$rigidperfectionism.s)

rig1 = lm(rigidperfectionism.i_c ~ 1 + rigidperfectionism.s_c, data = pp.full)
summary(rig1)
```

```
##
## Call:
## lm(formula = rigidperfectionism.i_c ~ 1 + rigidperfectionism.s_c,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.35273 -0.45710 -0.02243  0.41901  1.90788
##
## Coefficients:
##                        Estimate Std. Error t value Pr(>|t|)
## (Intercept)             0.06333    0.04277   1.481     0.14
## rigidperfectionism.s_c  0.27739    0.06258   4.432 1.51e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6168 on 206 degrees of freedom
## Multiple R-squared:  0.08706,    Adjusted R-squared:  0.08263
## F-statistic: 19.65 on 1 and 206 DF,  p-value: 1.515e-05
```

```
round(confint(rig1), 3)
```

```
##                         2.5 % 97.5 %
## (Intercept)            -0.021  0.148
## rigidperfectionism.s_c  0.154  0.401
```

```
# Moderation model
rig2 = lm(rigidperfectionism.i_c ~ rigidperfectionism.s_c*gen.z, data = pp.full)
summary(rig2)
```

```
##
## Call:
## lm(formula = rigidperfectionism.i_c ~ rigidperfectionism.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.42854 -0.41037 -0.02533  0.42146  2.05267
##
## Coefficients:
##                              Estimate Std. Error t value Pr(>|t|)
## (Intercept)                   0.05934    0.04277   1.387  0.16685
## rigidperfectionism.s_c        0.18053    0.06390   2.825  0.00519 **
## gen.z                         0.19723    0.04355   4.529 1.01e-05 ***
## rigidperfectionism.s_c:gen.z  0.01804    0.05628   0.321  0.74887
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5901 on 204 degrees of freedom
## Multiple R-squared:  0.1725, Adjusted R-squared:  0.1603
## F-statistic: 14.18 on 3 and 204 DF,  p-value: 1.989e-08
```

```
round(confint(rig2), 3)
```

```
##                               2.5 % 97.5 %
## (Intercept)                  -0.025  0.144
## rigidperfectionism.s_c        0.055  0.307
## gen.z                         0.111  0.283
## rigidperfectionism.s_c:gen.z -0.093  0.129
```

```
anova(rig1, rig2)
```

```
## Analysis of Variance Table
##
## Model 1: rigidperfectionism.i_c ~ 1 + rigidperfectionism.s_c
## Model 2: rigidperfectionism.i_c ~ rigidperfectionism.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 78.371
## 2    204 71.037  2    7.3348 10.532 4.437e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Risk Taking

t.test(pp.full$risktaking.s, pp.full$risktaking.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$risktaking.s and pp.full$risktaking.i
## t = -1.2399, df = 205, p-value = 0.2164
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.12772551  0.02910003
## sample estimates:
## mean of the differences
##             -0.04931274
```

```
wilcox.test(pp.full$risktaking.s, pp.full$risktaking.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$risktaking.s and pp.full$risktaking.i
## V = 9379.5, p-value = 0.3507
## alternative hypothesis: true location shift is not equal to 0
```

```r
(1.2399/sqrt(206))
```

```
## [1] 0.08638793
```

```r
pnorm(.086)
```

```
## [1] 0.5342668
```

```r
(2*pnorm((-abs(.086))/2))
```

```
## [1] 0.9657015
```

```r
print(corr.test(pp.full$risktaking.s, pp.full$risktaking.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$risktaking.s, y = pp.full$risktaking.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.38
## Sample Size
## [1] 206
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.256  0.38     0.491     0     0.256     0.491
```

```r
# Base model
pp.full$risktaking.s_c = pp.full$risktaking.s - mean(pp.full$risktaking.s)
pp.full$risktaking.i_c = pp.full$risktaking.i - mean(pp.full$risktaking.s)

ri1 = lm(risktaking.i_c ~ 1 + risktaking.s_c, data = pp.full)
summary(ri1)
```

```
##
## Call:
## lm(formula = risktaking.i_c ~ 1 + risktaking.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.2315 -0.3450 -0.0151  0.3014  1.4870
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)     0.04882    0.03617   1.350    0.179
## risktaking.s_c  0.50991    0.07397   6.894 6.66e-11 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5191 on 204 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.1889, Adjusted R-squared:  0.185
## F-statistic: 47.52 on 1 and 204 DF,  p-value: 6.657e-11
```

```r
round(confint(ri1), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)    -0.022  0.120
## risktaking.s_c  0.364  0.656
```

```r
# Moderation model
ri2 = lm(risktaking.i_c ~ risktaking.s_c*gen.z, data = pp.full)
summary(ri2)
```

```
##
## Call:
## lm(formula = risktaking.i_c ~ risktaking.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.23952 -0.33769 -0.02736  0.28944  1.47676
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.04127    0.03623   1.139    0.256
## risktaking.s_c        0.46512    0.07678   6.058 6.63e-09 ***
## gen.z                 0.04508    0.03667   1.229    0.220
## risktaking.s_c:gen.z  0.11049    0.07043   1.569    0.118
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.516 on 202 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.2064, Adjusted R-squared:  0.1946
## F-statistic: 17.51 on 3 and 202 DF,  p-value: 3.812e-10
```

```
round(confint(ri2), 3)
```

```
##                       2.5 % 97.5 %
## (Intercept)          -0.030  0.113
## risktaking.s_c        0.314  0.617
## gen.z                -0.027  0.117
## risktaking.s_c:gen.z -0.028  0.249
```

```
anova(ri1, ri2)
```

```
## Analysis of Variance Table
##
## Model 1: risktaking.i_c ~ 1 + risktaking.s_c
## Model 2: risktaking.i_c ~ risktaking.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    204 54.968
## 2    202 53.785  2    1.1835 2.2225  0.111
```

```
## Separation insecurity ##

t.test(pp.full$separationinsecurity.s, pp.full$separationinsecurity.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$separationinsecurity.s and pp.full$separationinsecurity.i
## t = -3.7975, df = 207, p-value = 0.0001921
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.30275327 -0.09582731
## sample estimates:
## mean of the differences
##              -0.1992903
```

```
wilcox.test(pp.full$separationinsecurity.s, pp.full$separationinsecurity.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$separationinsecurity.s and pp.full$separationinsecurity.i
## V = 5310, p-value = 5.103e-05
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.7975/sqrt(208))
```

```
## [1] 0.2633092
```

```r
pnorm(.263)
```

```
## [1] 0.6037247
```

```r
(2*pnorm((-abs(.263))/2))
```

```
## [1] 0.8953798
```

```r
print(corr.test(pp.full$separationinsecurity.s, pp.full$separationinsecurity.i, method = "spearman"), short
= F, digits = 3)
```

```
## Call:corr.test(x = pp.full$separationinsecurity.s, y = pp.full$separationinsecurity.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.404
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##        raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.283 0.404     0.512     0     0.283     0.512
```

```r
# Base model
pp.full$separationinsecurity.s_c = pp.full$separationinsecurity.s - mean(pp.full$separationinsecurity.s)
pp.full$separationinsecurity.i_c = pp.full$separationinsecurity.i - mean(pp.full$separationinsecurity.s)

sep1 = lm(separationinsecurity.i_c ~ 1 + separationinsecurity.s_c, data = pp.full)
summary(sep1)
```

```
##
## Call:
## lm(formula = separationinsecurity.i_c ~ 1 + separationinsecurity.s_c,
##     data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.4009 -0.5111 -0.1227  0.3773  1.6934
##
## Coefficients:
##                          Estimate Std. Error t value Pr(>|t|)
## (Intercept)               0.19929    0.04589   4.342 2.21e-05 ***
## separationinsecurity.s_c  0.42518    0.07148   5.948 1.15e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6619 on 206 degrees of freedom
## Multiple R-squared:  0.1466, Adjusted R-squared:  0.1424
## F-statistic: 35.38 on 1 and 206 DF,  p-value: 1.147e-08
```

```r
round(confint(sep1), 3)
```

```
##                          2.5 % 97.5 %
## (Intercept)              0.109  0.290
## separationinsecurity.s_c 0.284  0.566
```

```r
# Moderation model
sep2 = lm(separationinsecurity.i_c ~ separationinsecurity.s_c*gen.z, data = pp.full)
summary(sep2)
```

```
##
## Call:
## lm(formula = separationinsecurity.i_c ~ separationinsecurity.s_c *
##     gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.4882 -0.4775 -0.1042  0.3504  1.6277
##
## Coefficients:
##                                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)                      0.20355    0.04529   4.494 1.17e-05 ***
## separationinsecurity.s_c         0.36501    0.07344   4.970 1.41e-06 ***
## gen.z                            0.19141    0.04561   4.197 4.04e-05 ***
## separationinsecurity.s_c:gen.z -0.02896    0.06722  -0.431    0.667
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6374 on 204 degrees of freedom
## Multiple R-squared:  0.2161, Adjusted R-squared:  0.2046
## F-statistic: 18.75 on 3 and 204 DF,  p-value: 8.829e-11
```

```r
round(confint(sep2), 3)
```

```
##                                 2.5 % 97.5 %
## (Intercept)                      0.114  0.293
## separationinsecurity.s_c         0.220  0.510
## gen.z                            0.101  0.281
## separationinsecurity.s_c:gen.z -0.161  0.104
```

```r
anova(sep1, sep2)
```

```
## Analysis of Variance Table
##
## Model 1: separationinsecurity.i_c ~ 1 + separationinsecurity.s_c
## Model 2: separationinsecurity.i_c ~ separationinsecurity.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 90.247
## 2    204 82.893  2    7.3542 9.0494 0.0001716 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
## Submissiveness ##

t.test(pp.full$submissiveness.s, pp.full$submissiveness.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$submissiveness.s and pp.full$submissiveness.i
## t = -2.9094, df = 196, p-value = 0.00404
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.28319222 -0.05437123
## sample estimates:
## mean of the differences
##              -0.1687817
```

```r
wilcox.test(pp.full$submissiveness.s, pp.full$submissiveness.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$submissiveness.s and pp.full$submissiveness.i
## V = 5588, p-value = 0.006237
## alternative hypothesis: true location shift is not equal to 0
```

```
(2.9094/sqrt(197))
```

```
## [1] 0.2072862
```

```
pnorm(.207)
```

```
## [1] 0.5819951
```

```
(2*pnorm((-abs(.207))/2))
```

```
## [1] 0.9175661
```

```
print(corr.test(pp.full$submissiveness.s, pp.full$submissiveness.i, method = "spearman"), short = F, digits
= 3)
```

```
## Call:corr.test(x = pp.full$submissiveness.s, y = pp.full$submissiveness.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.207
## Sample Size
## [1] 197
## Probability values  adjusted for multiple tests.
## [1] 0.003
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA      0.07 0.207     0.337 0.003      0.07     0.337
```

```
# Base model
pp.full$submissiveness.s_c = pp.full$submissiveness.s - mean(pp.full$submissiveness.s, na.rm = T)
pp.full$submissiveness.i_c = pp.full$submissiveness.i - mean(pp.full$submissiveness.s, na.rm = T)

sub1 = lm(submissiveness.i_c ~ 1 + submissiveness.s_c, data = pp.full)
summary(sub1)
```

```
##
## Call:
## lm(formula = submissiveness.i_c ~ 1 + submissiveness.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.44523 -0.47656  0.02344  0.46878  1.63278
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)         0.16893    0.04416   3.825 0.000176 ***
## submissiveness.s_c  0.21867    0.06529   3.349 0.000972 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6198 on 195 degrees of freedom
##   (11 observations deleted due to missingness)
## Multiple R-squared:  0.0544, Adjusted R-squared:  0.04955
## F-statistic: 11.22 on 1 and 195 DF,  p-value: 0.0009722
```

```
round(confint(sub1), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)        0.082  0.256
## submissiveness.s_c 0.090  0.347
```

```
# Moderation model
sub2 = lm(submissiveness.i_c ~ submissiveness.s_c*(gen.z), data = pp.full)
summary(sub2)
```

```
##
## Call:
## lm(formula = submissiveness.i_c ~ submissiveness.s_c * (gen.z),
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.62408 -0.45014  0.00816  0.44976  1.63534
##
## Coefficients:
##                          Estimate Std. Error t value Pr(>|t|)
## (Intercept)               0.17041    0.04365   3.904 0.000131 ***
## submissiveness.s_c        0.20378    0.06480   3.145 0.001926 **
## gen.z                     0.03843    0.04419   0.870 0.385582
## submissiveness.s_c:gen.z -0.15187    0.06369  -2.385 0.018061 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6126 on 193 degrees of freedom
##   (11 observations deleted due to missingness)
## Multiple R-squared:  0.08576,    Adjusted R-squared:  0.07154
## F-statistic: 6.034 on 3 and 193 DF,  p-value: 0.0005992
```

```
round(confint(sub2), 3)
```

```
##                           2.5 % 97.5 %
## (Intercept)               0.084  0.257
## submissiveness.s_c        0.076  0.332
## gen.z                    -0.049  0.126
## submissiveness.s_c:gen.z -0.277 -0.026
```

```
# Test of simple slopes

sim_slopes(sub2, pred = submissiveness.s_c, modx = gen.z, modx.values = c(-2.5, -2, -1.5, -1, -.5, 0, .5, 1
, 1.5, 2, 2.5, 3),
           control.fdr = T)
```

```
## JOHNSON-NEYMAN INTERVAL
##
## When gen.z is OUTSIDE the interval [0.32, 23.54], the slope of
## submissiveness.s_c is p < .05.
##
## Note: The range of observed values of gen.z is [-2.69, 3.01]
##
## Interval calculated using false discovery rate adjusted t = 2.24
##
## SIMPLE SLOPES ANALYSIS
##
## Slope of submissiveness.s_c when gen.z =  3.00:
##
##   Est.   S.E.   t val.      p
## ------  -----  -------  -----
##  -0.25   0.21    -1.21   0.23
##
## Slope of submissiveness.s_c when gen.z =  2.50:
##
##   Est.   S.E.   t val.      p
## ------  -----  -------  -----
##  -0.18   0.18    -0.99   0.32
##
```

```
## Slope of submissiveness.s_c when gen.z =  2.00:
##
##   Est.   S.E.   t val.      p
## ------  -----  -------  -----
##  -0.10   0.15    -0.68   0.50
##
## Slope of submissiveness.s_c when gen.z =  1.50:
##
##   Est.   S.E.   t val.      p
## ------  -----  -------  -----
##  -0.02   0.12    -0.20   0.84
##
## Slope of submissiveness.s_c when gen.z =  1.00:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.05   0.09     0.55   0.59
##
## Slope of submissiveness.s_c when gen.z =  0.50:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.13   0.07     1.71   0.09
##
## Slope of submissiveness.s_c when gen.z =  0.00:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.20   0.06     3.14   0.00
##
## Slope of submissiveness.s_c when gen.z = -0.50:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.28   0.07     4.02   0.00
##
## Slope of submissiveness.s_c when gen.z = -1.00:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.36   0.09     4.11   0.00
##
## Slope of submissiveness.s_c when gen.z = -1.50:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.43   0.11     3.91   0.00
##
## Slope of submissiveness.s_c when gen.z = -2.00:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.51   0.14     3.69   0.00
##
## Slope of submissiveness.s_c when gen.z = -2.50:
##
##  Est.   S.E.   t val.      p
## -----  -----  -------  -----
##  0.58   0.17     3.51   0.00
```

```
anova(sub1, sub2)
```

```
## Analysis of Variance Table
##
## Model 1: submissiveness.i_c ~ 1 + submissiveness.s_c
## Model 2: submissiveness.i_c ~ submissiveness.s_c * (gen.z)
##   Res.Df    RSS Df Sum of Sq      F  Pr(>F)
## 1    195 74.921
## 2    193 72.436  2    2.4843 3.3095 0.03862 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Suspiciousness ##

t.test(pp.full$suspiciousness.s, pp.full$suspiciousness.i.ACCURATE, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$suspiciousness.s and pp.full$suspiciousness.i.ACCURATE
## t = -0.49401, df = 207, p-value = 0.6218
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.11905591  0.07134529
## sample estimates:
## mean of the differences
##             -0.02385531
```

```
wilcox.test(pp.full$suspiciousness.s, pp.full$suspiciousness.i.ACCURATE, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$suspiciousness.s and pp.full$suspiciousness.i.ACCURATE
## V = 10092, p-value = 0.944
## alternative hypothesis: true location shift is not equal to 0
```

```
(.49401/sqrt(208))
```

```
## [1] 0.03425343
```

```
pnorm(.034)
```

```
## [1] 0.5135614
```

```
(2*pnorm((-abs(.034))/2))
```

```
## [1] 0.9864366
```

```
print(corr.test(pp.full$suspiciousness.s, pp.full$suspiciousness.i.ACCURATE, method = "spearman"), short = F
, digits = 3)
```

```
## Call:corr.test(x = pp.full$suspiciousness.s, y = pp.full$suspiciousness.i.ACCURATE,
##     method = "spearman")
## Correlation matrix
## [1] 0.387
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##      raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.265 0.387     0.497     0     0.265     0.497
```

```r
# Base model
pp.full$suspiciousness.s_c = pp.full$suspiciousness.s - mean(pp.full$suspiciousness.s)
pp.full$suspiciousness.i_c = pp.full$suspiciousness.i - mean(pp.full$suspiciousness.s)

suspi1 = lm(suspiciousness.i_c ~ 1 + suspiciousness.s_c, data = pp.full)
summary(suspi1)
```

```
##
## Call:
## lm(formula = suspiciousness.i_c ~ 1 + suspiciousness.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.1260 -0.3890 -0.0091  0.3894  1.9048
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)         0.10440    0.03926   2.659  0.00845 **
## suspiciousness.s_c  0.40196    0.06403   6.278    2e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5662 on 206 degrees of freedom
## Multiple R-squared:  0.1606, Adjusted R-squared:  0.1565
## F-statistic: 39.41 on 1 and 206 DF,  p-value: 1.997e-09
```

```r
round(confint(suspi1), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)        0.027  0.182
## suspiciousness.s_c 0.276  0.528
```

```r
# Moderation model
suspi2 = lm(suspiciousness.i_c ~ suspiciousness.s_c*gen.z, data = pp.full)
summary(suspi2)
```

```
##
## Call:
## lm(formula = suspiciousness.i_c ~ suspiciousness.s_c * gen.z,
##     data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.49340 -0.33942 -0.02325  0.37874  1.35419
##
## Coefficients:
##                          Estimate Std. Error t value Pr(>|t|)
## (Intercept)               0.11772    0.03995   2.947  0.00358 **
## suspiciousness.s_c        0.16632    0.07202   2.310  0.02191 *
## gen.z                     0.27866    0.04335   6.429 8.95e-10 ***
## suspiciousness.s_c:gen.z -0.03952    0.05154  -0.767  0.44408
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5188 on 204 degrees of freedom
## Multiple R-squared:  0.3022, Adjusted R-squared:  0.2919
## F-statistic: 29.45 on 3 and 204 DF,  p-value: 7.311e-16
```

```r
round(confint(suspi2), 3)
```

```
##                           2.5 % 97.5 %
## (Intercept)               0.039  0.196
## suspiciousness.s_c        0.024  0.308
## gen.z                     0.193  0.364
## suspiciousness.s_c:gen.z -0.141  0.062
```

```
anova(suspi1, suspi2)
```

```
## Analysis of Variance Table
##
## Model 1: suspiciousness.i_c ~ 1 + suspiciousness.s_c
## Model 2: suspiciousness.i_c ~ suspiciousness.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 66.042
## 2    204 54.901  2    11.141 20.698 6.541e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Unusual beliefs ##

t.test(pp.full$unusualbelexp.s, pp.full$unusualbelexp.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$unusualbelexp.s and pp.full$unusualbelexp.i
## t = 1.6135, df = 205, p-value = 0.1082
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.01889482  0.18914448
## sample estimates:
## mean of the differences
##              0.08512483
```

```
wilcox.test(pp.full$unusualbelexp.s, pp.full$unusualbelexp.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$unusualbelexp.s and pp.full$unusualbelexp.i
## V = 7375, p-value = 0.1109
## alternative hypothesis: true location shift is not equal to 0
```

```
(1.6135/sqrt(206))
```

```
## [1] 0.1124179
```

```
pnorm(.112)
```

```
## [1] 0.5445883
```

```
(2*pnorm((-abs(.112))/2))
```

```
## [1] 0.9553418
```

```
print(corr.test(pp.full$unusualbelexp.s, pp.full$unusualbelexp.i, method = "spearman"), short = F, digits =
3)
```

```
## Call:corr.test(x = pp.full$unusualbelexp.s, y = pp.full$unusualbelexp.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.229
## Sample Size
## [1] 206
## Probability values  adjusted for multiple tests.
## [1] 0.001
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.096 0.229     0.355 0.001     0.096     0.355
```

```
# Base model
pp.full$unusualbelexp.s_c = pp.full$unusualbelexp.s - mean(pp.full$unusualbelexp.s)
pp.full$unusualbelexp.i_c = pp.full$unusualbelexp.i - mean(pp.full$unusualbelexp.s)

unu1 = lm(unusualbelexp.i_c ~ 1 + unusualbelexp.s_c, data = pp.full)
summary(unu1)
```

```
##
## Call:
## lm(formula = unusualbelexp.i_c ~ 1 + unusualbelexp.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.7763 -0.3633 -0.2682  0.2345  1.9899
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)       -0.08549    0.03971  -2.153  0.03251 *
## unusualbelexp.s_c  0.17389    0.06576   2.644  0.00882 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.57 on 204 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.03314,    Adjusted R-squared:  0.0284
## F-statistic: 6.992 on 1 and 204 DF,  p-value: 0.008823
```

```
round(confint(unu1), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)       -0.164 -0.007
## unusualbelexp.s_c  0.044  0.304
```

```
# Moderation model
unu2 = lm(unusualbelexp.i_c ~ unusualbelexp.s_c*gen.z, data = pp.full)
summary(unu2)
```

```
##
## Call:
## lm(formula = unusualbelexp.i_c ~ unusualbelexp.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.7043 -0.3831 -0.1919  0.2109  1.7486
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)             -0.07181    0.03936  -1.824  0.06960 .
## unusualbelexp.s_c        0.15773    0.06597   2.391  0.01773 *
## gen.z                    0.12621    0.04007   3.150  0.00188 **
## unusualbelexp.s_c:gen.z -0.12885    0.07405  -1.740  0.08337 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5545 on 202 degrees of freedom
##   (2 observations deleted due to missingness)
## Multiple R-squared:  0.09401,    Adjusted R-squared:  0.08055
## F-statistic: 6.987 on 3 and 202 DF,  p-value: 0.0001705
```

```
round(confint(unu2), 3)
```

```
##                          2.5 % 97.5 %
## (Intercept)             -0.149  0.006
## unusualbelexp.s_c        0.028  0.288
## gen.z                    0.047  0.205
## unusualbelexp.s_c:gen.z -0.275  0.017
```

```
anova(unu1, unu2)
```

```
## Analysis of Variance Table
##
## Model 1: unusualbelexp.i_c ~ 1 + unusualbelexp.s_c
## Model 2: unusualbelexp.i_c ~ unusualbelexp.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F   Pr(>F)
## 1    204 66.276
## 2    202 62.103  2    4.1722 6.7854 0.001406 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
## Withdrawal ##

t.test(pp.full$withdrawal.s, pp.full$withdrawal.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$withdrawal.s and pp.full$withdrawal.i
## t = -0.50002, df = 207, p-value = 0.6176
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.12871852  0.07663519
## sample estimates:
## mean of the differences
##             -0.02604167
```

```
wilcox.test(pp.full$withdrawal.s, pp.full$withdrawal.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$withdrawal.s and pp.full$withdrawal.i
## V = 9130, p-value = 0.8625
## alternative hypothesis: true location shift is not equal to 0
```

```
(.50002/sqrt(208))
```

```
## [1] 0.03467015
```

```
pnorm(.035)
```

```
## [1] 0.5139601
```

```
(2*pnorm((-abs(.035))/2))
```

```
## [1] 0.9860377
```

```
print(corr.test(pp.full$withdrawal.s, pp.full$withdrawal.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$withdrawal.s, y = pp.full$withdrawal.i,
##     method = "spearman")
## Correlation matrix
## [1] 0.328
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.201 0.328     0.444     0     0.201     0.444
```

```
# Base model
pp.full$withdrawal.s_c = pp.full$withdrawal.s - mean(pp.full$withdrawal.s)
pp.full$withdrawal.i_c = pp.full$withdrawal.i - mean(pp.full$withdrawal.s)

wit1 = lm(withdrawal.i_c ~ 1 + withdrawal.s_c, data = pp.full)
summary(wit1)
```

```
##
## Call:
## lm(formula = withdrawal.i_c ~ 1 + withdrawal.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.0600 -0.4925 -0.1015  0.3634  2.3165
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)     0.02604    0.04120   0.632    0.528
## withdrawal.s_c  0.29780    0.06287   4.737 4.03e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5942 on 206 degrees of freedom
## Multiple R-squared:  0.09823,    Adjusted R-squared:  0.09386
## F-statistic: 22.44 on 1 and 206 DF,  p-value: 4.032e-06
```

```
round(confint(wit1), 3)
```

```
##                 2.5 % 97.5 %
## (Intercept)    -0.055  0.107
## withdrawal.s_c  0.174  0.422
```

```
# Moderation model
wit2 = lm(withdrawal.i_c ~ withdrawal.s_c*gen.z, data = pp.full)
summary(wit2)
```

```
##
## Call:
## lm(formula = withdrawal.i_c ~ withdrawal.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.40123 -0.35987 -0.07066  0.35348  2.17278
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.04859    0.04116   1.180    0.239
## withdrawal.s_c        0.07696    0.06881   1.118    0.265
## gen.z                 0.30513    0.04417   6.908 6.12e-11 ***
## withdrawal.s_c:gen.z -0.06522    0.05073  -1.286    0.200
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5371 on 204 degrees of freedom
## Multiple R-squared:  0.2704, Adjusted R-squared:  0.2597
## F-statistic:  25.2 on 3 and 204 DF,  p-value: 6.508e-14
```

```
round(confint(wit2), 3)
```

```
##                       2.5 % 97.5 %
## (Intercept)          -0.033  0.130
## withdrawal.s_c       -0.059  0.213
## gen.z                 0.218  0.392
## withdrawal.s_c:gen.z -0.165  0.035
```

```
anova(wit1, wit2)
```

```
## Analysis of Variance Table
##
## Model 1: withdrawal.i_c ~ 1 + withdrawal.s_c
## Model 2: withdrawal.i_c ~ withdrawal.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 72.733
## 2    204 58.846  2    13.888 24.072 4.111e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Self-other agreement for PID-5 PD scores

```
#### Correlational accuracy and mean-level bias ######

## Antisocial PD

t.test(pp.full$anti.pid.s, pp.full$anti.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$anti.pid.s and pp.full$anti.pid.i
## t = -5.2365, df = 207, p-value = 4.011e-07
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.2684130 -0.1215825
## sample estimates:
## mean of the differences
##              -0.1949977
```

```
wilcox.test(pp.full$anti.pid.i, pp.full$anti.pid.s, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$anti.pid.i and pp.full$anti.pid.s
## V = 14538, p-value = 1.227e-05
## alternative hypothesis: true location shift is not equal to 0
```

```
(5.2365/sqrt(208))
```

```
## [1] 0.3630859
```

```
pnorm(.363)
```

```
## [1] 0.6416976
```

```
(2*pnorm((-abs(.363))/2))
```

```
## [1] 0.8559751
```

```
print(corr.test(pp.full$anti.pid.s, pp.full$anti.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$anti.pid.s, y = pp.full$anti.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.414
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.294 0.414     0.521     0     0.294     0.521
```

```
## Avoidant PD

t.test(pp.full$avoid.pid.s, pp.full$avoid.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$avoid.pid.s and pp.full$avoid.pid.i
## t = -0.86104, df = 207, p-value = 0.3902
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.1121254  0.0439573
## sample estimates:
## mean of the differences
##             -0.03408406
```

```
wilcox.test(pp.full$avoid.pid.s, pp.full$avoid.pid.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$avoid.pid.s and pp.full$avoid.pid.i
## V = 10238, p-value = 0.4685
## alternative hypothesis: true location shift is not equal to 0
```

```
(.86104/sqrt(208))
```

```
## [1] 0.05970238
```

```r
pnorm(.060)
```

```
## [1] 0.5239222
```

```r
(2*pnorm((-abs(.060))/2))
```

```
## [1] 0.9760671
```

```r
print(corr.test(pp.full$avoid.pid.s, pp.full$avoid.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$avoid.pid.s, y = pp.full$avoid.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.432
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.315 0.432     0.537     0     0.315     0.537
```

```r
## BPD

t.test(pp.full$bord.pid.s, pp.full$bord.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$bord.pid.s and pp.full$bord.pid.i
## t = -3.4406, df = 207, p-value = 0.0007019
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.19630294 -0.05328695
## sample estimates:
## mean of the differences
##              -0.1247949
```

```r
wilcox.test(pp.full$bord.pid.s, pp.full$bord.pid.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$bord.pid.s and pp.full$bord.pid.i
## V = 8403, p-value = 0.004572
## alternative hypothesis: true location shift is not equal to 0
```

```r
(3.4406/sqrt(208))
```

```
## [1] 0.2385627
```

```r
pnorm(.239)
```

```
## [1] 0.5944472
```

```r
(2*pnorm((-abs(.239))/2))
```

```
## [1] 0.9048792
```

```r
print(corr.test(pp.full$bord.pid.s, pp.full$bord.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$bord.pid.s, y = pp.full$bord.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.488
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.377 0.488     0.585     0     0.377     0.585
```

```
## Narcissistic PD

t.test(pp.full$nar.pid.s, pp.full$nar.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$nar.pid.s and pp.full$nar.pid.i
## t = -3.1586, df = 207, p-value = 0.001822
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.2707549 -0.0626528
## sample estimates:
## mean of the differences
##              -0.1667039
```

```
wilcox.test(pp.full$nar.pid.s, pp.full$nar.pid.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$nar.pid.s and pp.full$nar.pid.i
## V = 7729, p-value = 0.004633
## alternative hypothesis: true location shift is not equal to 0
```

```
(3.1586/sqrt(208))
```

```
## [1] 0.2190095
```

```
pnorm(.219)
```

```
## [1] 0.586675
```

```
(2*pnorm((-abs(.219))/2))
```

```
## [1] 0.9128059
```

```
print(corr.test(pp.full$nar.pid.s, pp.full$nar.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$nar.pid.s, y = pp.full$nar.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.295
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.165 0.295     0.414     0     0.165     0.414
```

```r
## Obsessive-Compulsive PD

t.test(pp.full$obs.pid.s, pp.full$obs.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$obs.pid.s and pp.full$obs.pid.i
## t = -4.5917, df = 207, p-value = 7.626e-06
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.24744799 -0.09878757
## sample estimates:
## mean of the differences
##              -0.1731178
```

```r
wilcox.test(pp.full$obs.pid.s, pp.full$obs.pid.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$obs.pid.s and pp.full$obs.pid.i
## V = 7040, p-value = 1.063e-05
## alternative hypothesis: true location shift is not equal to 0
```

```r
(4.5917/sqrt(208))
```

```
## [1] 0.3183771
```

```r
pnorm(.318)
```

```
## [1] 0.6247575
```

```r
(2*pnorm((-abs(.318))/2))
```

```
## [1] 0.8736689
```

```r
print(corr.test(pp.full$obs.pid.s, pp.full$obs.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$obs.pid.s, y = pp.full$obs.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.32
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.193  0.32     0.437     0     0.193     0.437
```

```r
## Schizotypal PD

t.test(pp.full$schiz.pid.s, pp.full$schiz.pid.i, paired = T)
```

```
##
##  Paired t-test
##
## data:  pp.full$schiz.pid.s and pp.full$schiz.pid.i
## t = -2.1311, df = 207, p-value = 0.03426
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.157868291 -0.006142818
## sample estimates:
## mean of the differences
##             -0.08200555
```

```
wilcox.test(pp.full$schiz.pid.s, pp.full$schiz.pid.i, paired = T)
```

```
##
##  Wilcoxon signed rank test with continuity correction
##
## data:  pp.full$schiz.pid.s and pp.full$schiz.pid.i
## V = 9107, p-value = 0.0428
## alternative hypothesis: true location shift is not equal to 0
```

```
(2.1311/sqrt(208))
```

```
## [1] 0.1477652
```

```
pnorm(.148)
```

```
## [1] 0.5588286
```

```
(2*pnorm((-abs(.148))/2))
```

```
## [1] 0.9410104
```

```
print(corr.test(pp.full$schiz.pid.s, pp.full$schiz.pid.i, method = "spearman"), short = F, digits = 3)
```

```
## Call:corr.test(x = pp.full$schiz.pid.s, y = pp.full$schiz.pid.i, method = "spearman")
## Correlation matrix
## [1] 0.295
## Sample Size
## [1] 208
## Probability values  adjusted for multiple tests.
## [1] 0
##
##  Confidence intervals based upon normal theory.  To get bootstrapped values, try cor.ci
##       raw.lower raw.r raw.upper raw.p lower.adj upper.adj
## NA-NA     0.166 0.295     0.415     0     0.166     0.415
```

```
####### Regression models ######

##### Antisocial PD #########

# Base model
pp.full$anti.pid.s_c = pp.full$anti.pid.s - mean(pp.full$anti.pid.s)
pp.full$anti.pid.i_c = pp.full$anti.pid.i - mean(pp.full$anti.pid.s)

anti.model1 = lm(anti.pid.i_c ~ 1 + anti.pid.s_c, data = pp.full)
summary(anti.model1)
```

```
##
## Call:
## lm(formula = anti.pid.i_c ~ 1 + anti.pid.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.01143 -0.37343 -0.09709  0.32756  1.65626
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.19500    0.03486   5.593 7.04e-08 ***
## anti.pid.s_c  0.57047    0.07821   7.294 6.38e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5028 on 206 degrees of freedom
## Multiple R-squared:  0.2052, Adjusted R-squared:  0.2014
## F-statistic:  53.2 on 1 and 206 DF,  p-value: 6.376e-12
```

```
round(confint(anti.model1), 3)
```

```
##              2.5 % 97.5 %
## (Intercept)  0.126  0.264
## anti.pid.s_c 0.416  0.725
```

```
# Moderation model
anti.model2 = lm(anti.pid.i_c ~ anti.pid.s_c*gen.z, data = pp.full)
summary(anti.model2)
```

```
##
## Call:
## lm(formula = anti.pid.i_c ~ anti.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.02127 -0.34906 -0.08503  0.29717  1.61816
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)         0.19760    0.03501   5.643 5.53e-08 ***
## anti.pid.s_c        0.35819    0.08712   4.112 5.69e-05 ***
## gen.z               0.21049    0.03705   5.681 4.57e-08 ***
## anti.pid.s_c:gen.z -0.01259    0.06258  -0.201    0.841
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4693 on 204 degrees of freedom
## Multiple R-squared:  0.3143, Adjusted R-squared:  0.3042
## F-statistic: 31.17 on 3 and 204 DF,  p-value: < 2.2e-16
```

```
round(confint(anti.model2), 3)
```

```
##                     2.5 % 97.5 %
## (Intercept)         0.129  0.267
## anti.pid.s_c        0.186  0.530
## gen.z               0.137  0.284
## anti.pid.s_c:gen.z -0.136  0.111
```

```
anova(anti.model1, anti.model2)
```

```
## Analysis of Variance Table
##
## Model 1: anti.pid.i_c ~ 1 + anti.pid.s_c
## Model 2: anti.pid.i_c ~ anti.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 52.081
## 2    204 44.933  2    7.1473 16.224 2.891e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Test of simple intercepts

at.antifactor = seq(-2.69, 3.01, .01)
intercepts.anti = anti.model2$coef[1] + anti.model2$coef[3]*at.antifactor

estmean.anti = coef(anti.model2)
var.anti = vcov(anti.model2)
se.anti = rep(NA, length(at.antifactor))

for(i in 1:length(at.antifactor)){
  j = at.antifactor[i]
  se.anti[i] = deltamethod(~ (x1) + (x3)*j, estmean.anti, var.anti)
}

upper.anti = intercepts.anti + 1.96*se.anti
lower.anti = intercepts.anti - 1.96*se.anti

anti.intercepts = cbind(at.antifactor, intercepts.anti, lower.anti, upper.anti)
anti.intercepts = as.data.frame(anti.intercepts)



##### Avoidant PD #########

# Base model
pp.full$avoid.pid.s_c = pp.full$avoid.pid.s - mean(pp.full$avoid.pid.s)
pp.full$avoid.pid.i_c = pp.full$avoid.pid.i - mean(pp.full$avoid.pid.s)

avoid.model1 = lm(avoid.pid.i_c ~ 1 + avoid.pid.s_c, data = pp.full)
summary(avoid.model1)
```

```
##
## Call:
## lm(formula = avoid.pid.i_c ~ 1 + avoid.pid.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.93230 -0.35859 -0.09665  0.31459  1.69040
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.03408    0.03280   1.039      0.3
## avoid.pid.s_c  0.41676    0.05967   6.984 3.88e-11 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.473 on 206 degrees of freedom
## Multiple R-squared:  0.1914, Adjusted R-squared:  0.1875
## F-statistic: 48.78 on 1 and 206 DF,  p-value: 3.881e-11
```

```
round(confint(avoid.model1), 3)
```

```
##                2.5 % 97.5 %
## (Intercept)   -0.031  0.099
## avoid.pid.s_c  0.299  0.534
```

```r
## Moderation model

avoid.model2 = lm(avoid.pid.i_c ~ avoid.pid.s_c*gen.z, data = pp.full)
summary(avoid.model2)
```

```
##
## Call:
## lm(formula = avoid.pid.i_c ~ avoid.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.89948 -0.30717 -0.02707  0.29532  1.06143
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)           0.04940    0.03229   1.530    0.128
## avoid.pid.s_c         0.08722    0.06909   1.262    0.208
## gen.z                 0.30702    0.03677   8.350 1.03e-14 ***
## avoid.pid.s_c:gen.z -0.04437    0.04431  -1.001    0.318
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4102 on 204 degrees of freedom
## Multiple R-squared:  0.3978, Adjusted R-squared:  0.389
## F-statistic: 44.93 on 3 and 204 DF,  p-value: < 2.2e-16
```

```r
round(confint(avoid.model2), 3)
```

```
##                      2.5 % 97.5 %
## (Intercept)         -0.014  0.113
## avoid.pid.s_c       -0.049  0.223
## gen.z                0.235  0.380
## avoid.pid.s_c:gen.z -0.132  0.043
```

```r
anova(avoid.model1, avoid.model2) # p < .001
```

```
## Analysis of Variance Table
##
## Model 1: avoid.pid.i_c ~ 1 + avoid.pid.s_c
## Model 2: avoid.pid.i_c ~ avoid.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 46.093
## 2    204 34.327  2    11.766 34.961 8.795e-14 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Test of simple intercepts

at.avoidfactor = seq(-2.69, 3.01, .01)
intercepts.avoid = avoid.model2$coef[1] + avoid.model2$coef[3]*at.avoidfactor

estmean.avoid = coef(avoid.model2)
var.avoid = vcov(avoid.model2)
se.avoid = rep(NA, length(at.avoidfactor))

for(i in 1:length(at.avoidfactor)){
  j = at.avoidfactor[i]
  se.avoid[i] = deltamethod(~ (x1) + (x3)*j, estmean.avoid, var.avoid)
}

upper.avoid = intercepts.avoid + 1.96*se.avoid
lower.avoid = intercepts.avoid - 1.96*se.avoid

avoid.intercepts = cbind(at.avoidfactor, intercepts.avoid, lower.avoid, upper.avoid)
avoid.intercepts = as.data.frame(avoid.intercepts)



##### BPD #########

# Base model
pp.full$bord.pid.s_c = pp.full$bord.pid.s - mean(pp.full$bord.pid.s)
pp.full$bord.pid.i_c = pp.full$bord.pid.i - mean(pp.full$bord.pid.s)

bord.model1 = lm(bord.pid.i_c ~ 1 + bord.pid.s_c, data = pp.full)
summary(bord.model1)
```

```
##
## Call:
## lm(formula = bord.pid.i_c ~ 1 + bord.pid.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.8371 -0.3664 -0.0963  0.3463  1.5758
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.12479    0.03272   3.814 0.000181 ***
## bord.pid.s_c  0.54653    0.06521   8.381 8.14e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4719 on 206 degrees of freedom
## Multiple R-squared:  0.2543, Adjusted R-squared:  0.2507
## F-statistic: 70.25 on 1 and 206 DF,  p-value: 8.14e-15
```

```r
round(confint(bord.model1), 3)
```

```
##              2.5 % 97.5 %
## (Intercept)  0.060  0.189
## bord.pid.s_c 0.418  0.675
```

```r
## Moderation model

bord.model2 = lm(bord.pid.i_c ~ bord.pid.s_c*gen.z, data = pp.full)
summary(bord.model2)
```

```
##
## Call:
## lm(formula = bord.pid.i_c ~ bord.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.88776 -0.32243 -0.08532  0.29390  1.44777
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)        0.123321   0.033422   3.690 0.000288 ***
## bord.pid.s_c       0.316523   0.070464   4.492 1.18e-05 ***
## gen.z              0.225724   0.035271   6.400 1.05e-09 ***
## bord.pid.s_c:gen.z 0.005792   0.058424   0.099 0.921131
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4317 on 204 degrees of freedom
## Multiple R-squared:  0.382,  Adjusted R-squared:  0.373
## F-statistic: 42.04 on 3 and 204 DF,  p-value: < 2.2e-16
```

```
round(confint(bord.model2), 3)
```

```
##                     2.5 % 97.5 %
## (Intercept)         0.057  0.189
## bord.pid.s_c        0.178  0.455
## gen.z               0.156  0.295
## bord.pid.s_c:gen.z -0.109  0.121
```

```
anova(bord.model1, bord.model2)
```

```
## Analysis of Variance Table
##
## Model 1: bord.pid.i_c ~ 1 + bord.pid.s_c
## Model 2: bord.pid.i_c ~ bord.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 45.875
## 2    204 38.015  2    7.8594 21.088 4.735e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Test of simple intercepts

at.bordfactor = seq(-2.69, 3.01, .01)
intercepts.bord = bord.model2$coef[1] + bord.model2$coef[3]*at.bordfactor

estmean.bord = coef(bord.model2)
var.bord = vcov(bord.model2)
se.bord = rep(NA, length(at.bordfactor))

for(i in 1:length(at.bordfactor)){
  j = at.bordfactor[i]
  se.bord[i] = deltamethod(~ (x1) + (x3)*j, estmean.bord, var.bord)
}

upper.bord = intercepts.bord + 1.96*se.bord
lower.bord = intercepts.bord - 1.96*se.bord

bord.intercepts = cbind(at.bordfactor, intercepts.bord, lower.bord, upper.bord)
bord.intercepts = as.data.frame(bord.intercepts)





##### Narcissistic PD #########

# Base model
pp.full$nar.pid.s_c = pp.full$nar.pid.s - mean(pp.full$nar.pid.s)
pp.full$nar.pid.i_c = pp.full$nar.pid.i - mean(pp.full$nar.pid.s)

nar.model1 = lm(nar.pid.i_c ~ 1 + nar.pid.s_c, data = pp.full)
summary(nar.model1)
```

```
##
## Call:
## lm(formula = nar.pid.i_c ~ 1 + nar.pid.s_c, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.1635 -0.5507 -0.1477  0.4918  2.3035
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.16670    0.04666   3.573  0.00044 ***
## nar.pid.s_c  0.36719    0.08247   4.452 1.39e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6729 on 206 degrees of freedom
## Multiple R-squared:  0.08778,    Adjusted R-squared:  0.08335
## F-statistic: 19.82 on 1 and 206 DF,  p-value: 1.392e-05
```

```r
round(confint(nar.model1), 3)
```

```
##             2.5 % 97.5 %
## (Intercept) 0.075  0.259
## nar.pid.s_c 0.205  0.530
```

```r
# Moderation model
nar.model2 = lm(nar.pid.i_c ~ nar.pid.s_c*gen.z, data = pp.full)
summary(nar.model2)
```

```
##
## Call:
## lm(formula = nar.pid.i_c ~ nar.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.1763 -0.4547 -0.1037  0.4673  2.2013
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)        0.16173    0.04583   3.529 0.000516 ***
## nar.pid.s_c        0.28496    0.08189   3.480 0.000614 ***
## gen.z              0.19583    0.04625   4.234 3.47e-05 ***
## nar.pid.s_c:gen.z  0.03974    0.07428   0.535 0.593239
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6473 on 204 degrees of freedom
## Multiple R-squared:  0.1641, Adjusted R-squared:  0.1518
## F-statistic: 13.35 on 3 and 204 DF,  p-value: 5.469e-08
```

```
round(confint(nar.model2), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)        0.071  0.252
## nar.pid.s_c        0.123  0.446
## gen.z              0.105  0.287
## nar.pid.s_c:gen.z -0.107  0.186
```

```
anova(nar.model1, nar.model2)
```

```
## Analysis of Variance Table
##
## Model 1: nar.pid.i_c ~ 1 + nar.pid.s_c
## Model 2: nar.pid.i_c ~ nar.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 93.275
## 2    204 85.475  2    7.8004 9.3085 0.0001353 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Test of simple intercepts

at.narfactor = seq(-2.69, 3.01, .01)
intercepts.nar = nar.model2$coef[1] + nar.model2$coef[3]*at.narfactor

estmean.nar = coef(nar.model2)
var.nar = vcov(nar.model2)
se.nar = rep(NA, length(at.narfactor))

for(i in 1:length(at.narfactor)){
  j = at.narfactor[i]
  se.nar[i] = deltamethod(~ (x1) + (x3)*j, estmean.nar, var.nar)
}

upper.nar = intercepts.nar + 1.96*se.nar
lower.nar = intercepts.nar - 1.96*se.nar

nar.intercepts = cbind(at.narfactor, intercepts.nar, lower.nar, upper.nar)
nar.intercepts = as.data.frame(nar.intercepts)


##### Obsessive-Compulsive PD #########

# Base model
pp.full$obs.pid.s_c = pp.full$obs.pid.s - mean(pp.full$obs.pid.s)
pp.full$obs.pid.i_c = pp.full$obs.pid.i - mean(pp.full$obs.pid.s)

obs.model1 = lm(obs.pid.i_c ~ 1 + obs.pid.s_c, data = pp.full)
summary(obs.model1)
```

```
##
## Call:
## lm(formula = obs.pid.i_c ~ 1 + obs.pid.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.06253 -0.33079 -0.02434  0.30953  1.07300
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.17312    0.03070   5.639 5.60e-08 ***
## obs.pid.s_c  0.32435    0.06557   4.947 1.56e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4428 on 206 degrees of freedom
## Multiple R-squared:  0.1062, Adjusted R-squared:  0.1018
## F-statistic: 24.47 on 1 and 206 DF,  p-value: 1.565e-06
```

```r
round(confint(obs.model1), 3)
```

```
##             2.5 % 97.5 %
## (Intercept) 0.113  0.234
## obs.pid.s_c 0.195  0.454
```

```r
## Moderation model

obs.model2 = lm(obs.pid.i_c ~ obs.pid.s_c*gen.z, data = pp.full)
summary(obs.model2)
```

```
##
## Call:
## lm(formula = obs.pid.i_c ~ obs.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.92879 -0.32664 -0.01474  0.28158  1.06063
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)         0.18235    0.03062   5.956 1.12e-08 ***
## obs.pid.s_c         0.12245    0.06965   1.758   0.0802 .
## gen.z               0.20677    0.03265   6.334 1.50e-09 ***
## obs.pid.s_c:gen.z -0.04076    0.05264  -0.774   0.4396
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4067 on 204 degrees of freedom
## Multiple R-squared:  0.2531, Adjusted R-squared:  0.2421
## F-statistic: 23.04 on 3 and 204 DF,  p-value: 6.892e-13
```

```
round(confint(obs.model2), 3)
```

```
##                    2.5 % 97.5 %
## (Intercept)         0.122  0.243
## obs.pid.s_c        -0.015  0.260
## gen.z               0.142  0.271
## obs.pid.s_c:gen.z -0.145  0.063
```

```
anova(obs.model1, obs.model2)
```

```
## Analysis of Variance Table
##
## Model 1: obs.pid.i_c ~ 1 + obs.pid.s_c
## Model 2: obs.pid.i_c ~ obs.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 40.387
## 2    204 33.747  2    6.6391 20.066 1.108e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Test of simple intercepts

at.obsfactor = seq(-2.69, 3.01, .01)
intercepts.obs = obs.model2$coef[1] + obs.model2$coef[3]*at.obsfactor

estmean.obs = coef(obs.model2)
var.obs = vcov(obs.model2)
se.obs = rep(NA, length(at.obsfactor))

for(i in 1:length(at.obsfactor)){
  j = at.obsfactor[i]
  se.obs[i] = deltamethod(~ (x1) + (x3)*j, estmean.obs, var.obs)
}

upper.obs = intercepts.obs + 1.96*se.obs
lower.obs = intercepts.obs - 1.96*se.obs

obs.intercepts = cbind(at.obsfactor, intercepts.obs, lower.obs, upper.obs)
obs.intercepts = as.data.frame(obs.intercepts)


##### Schizotypal PD #########

# Base model
pp.full$schiz.pid.s_c = pp.full$schiz.pid.s - mean(pp.full$schiz.pid.s)
pp.full$schiz.pid.i_c = pp.full$schiz.pid.i - mean(pp.full$schiz.pid.s)

schiz.model1 = lm(schiz.pid.i_c ~ 1 + schiz.pid.s_c, data = pp.full)
summary(schiz.model1)
```

```
##
## Call:
## lm(formula = schiz.pid.i_c ~ 1 + schiz.pid.s_c, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.74662 -0.31095 -0.06591  0.29948  1.36748
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.08201    0.03042   2.696   0.0076 **
## schiz.pid.s_c  0.27387    0.06488   4.221 3.64e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4387 on 206 degrees of freedom
## Multiple R-squared:  0.07962,    Adjusted R-squared:  0.07515
## F-statistic: 17.82 on 1 and 206 DF,  p-value: 3.64e-05
```

```r
round(confint(schiz.model1), 3)
```

```
##               2.5 % 97.5 %
## (Intercept)   0.022  0.142
## schiz.pid.s_c 0.146  0.402
```

```r
# Moderation model
schiz.model2 = lm(schiz.pid.i_c ~ schiz.pid.s_c*gen.z, data = pp.full)
summary(schiz.model2)
```

```
##
## Call:
## lm(formula = schiz.pid.i_c ~ schiz.pid.s_c * gen.z, data = pp.full)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.83998 -0.28255 -0.05679  0.22559  1.12686
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)          0.09707    0.02940   3.301  0.00114 **
## schiz.pid.s_c        0.04400    0.06579   0.669  0.50443
## gen.z                0.24460    0.03060   7.992 9.63e-14 ***
## schiz.pid.s_c:gen.z -0.06748    0.05548  -1.216  0.22524
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3846 on 204 degrees of freedom
## Multiple R-squared:  0.2994, Adjusted R-squared:  0.2891
## F-statistic: 29.06 on 3 and 204 DF,  p-value: 1.093e-15
```

```
round(confint(schiz.model2), 3)
```

```
##                      2.5 % 97.5 %
## (Intercept)          0.039  0.155
## schiz.pid.s_c       -0.086  0.174
## gen.z                0.184  0.305
## schiz.pid.s_c:gen.z -0.177  0.042
```

```
anova(schiz.model1, schiz.model2)
```

```
## Analysis of Variance Table
##
## Model 1: schiz.pid.i_c ~ 1 + schiz.pid.s_c
## Model 2: schiz.pid.i_c ~ schiz.pid.s_c * gen.z
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    206 39.645
## 2    204 30.177  2    9.4672 31.999 8.181e-13 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Test of simple intercepts

at.schizfactor = seq(-2.69, 3.01, .01)
intercepts.schiz = schiz.model2$coef[1] + schiz.model2$coef[3]*at.schizfactor

estmean.schiz = coef(schiz.model2)
var.schiz = vcov(schiz.model2)
se.schiz = rep(NA, length(at.schizfactor))

for(i in 1:length(at.schizfactor)){
  j = at.schizfactor[i]
  se.schiz[i] = deltamethod(~ (x1) + (x3)*j, estmean.schiz, var.schiz)
}

upper.schiz = intercepts.schiz + 1.96*se.schiz
lower.schiz = intercepts.schiz - 1.96*se.schiz

schiz.intercepts = cbind(at.schizfactor, intercepts.schiz, lower.schiz, upper.schiz)
schiz.intercepts = as.data.frame(schiz.intercepts)
```

P-value adjustments (Benjamini-Hochberg method)

```r
domain.p = c(.08223, # dz for NA
             1.377969e-11, # r for NA

             .0005768, # dz for AT
             9.17164e-05, # r for AT

             7.377e-09, # dz for DS
             5.029261e-19, # r for DS

             .4285, # dz for PS
             5.1054e-06, # r for PS

             0.1097, # dz for DT
             .0006405343, # r for DT

             0.0469, # b0 for base model of NA
             3.04e-11, # b1 for base model of NA
             0.052032, # b0 for moderation model of NA
             0.000206, # b1 for moderation model of NA
             3.97e-10, # b2 for moderation model of NA
             0.945073, # b3 for moderation model of NA

             0.000158,1.22e-05,0.000253,0.030118,4.25e-08,0.428927, # AT models

             4.03e-10, 2e-16,6.90e-11,7.01e-15,0.00087,0.10420, # DS models

             0.321489,0.000405,0.1476,0.0181,4.23e-07,0.1475, # PS models

             0.0515,1.61e-09,0.0134,0.0830,3.76e-11,0.2181) # DT models


domain.p.adjust = p.adjust(domain.p, method = "BH", n = length(domain.p))
round(domain.p.adjust, 3)
```

```
##  [1] 0.107 0.000 0.001 0.000 0.000 0.000 0.440 0.000 0.133 0.001 0.069
## [12] 0.000 0.072 0.000 0.000 0.945 0.000 0.000 0.001 0.046 0.000 0.440
## [23] 0.000 0.000 0.000 0.000 0.002 0.130 0.348 0.001 0.169 0.029 0.000
## [34] 0.169 0.072 0.000 0.022 0.107 0.000 0.242
```

```r
facet.p = c(0.6257, # dz for anhedonia
            7.370521e-11, # r for anhedonia
            0.513, # b0 in base model
            2.46e-10, # b1 in base model
            0.1765, # b0 in moderation model
            0.0138, # b1 in moderation model
            4.9e-10, # b2 in moderation model
            0.1295, # b3 in moderation model, etc.

            0.2882,
            7.236264e-12,
            0.218,
            6.43e-12,
            0.110,
            0.011,
            1.89e-11,
            0.405,

            0.003392,
            0.0006035631,
            0.000504,
            8.64e-05,
            0.000534,
            0.000522,
            0.002386,
            0.681966,

            7.174e-08,
            1.290103e-07,
            1.11e-08,
            3.88e-08,
            2.00e-08,
```

```
            0.151,
            3.06e-11,
            0.561,

            0.001755,
            0.001945211,
            0.000488,
            8.49e-05,
            0.000766,
            0.291957,
            3.14e-09,
            0.545163,

            0.007453,
            3.256193e-16,
            0.00264,
            2e-16,
            0.00359,
            2.53e-06,
            2.29e-08,
            0.95628,

            5.057e-05,
            2.598725e-12,
            2.91e-06,
            1.08e-13,
            1.38e-06,
            2.01e-09,
            0.00217,
            0.24903,

            0.01348,
            0.001009518,
            0.001810,
            0.000401,
            0.00106,
            0.03411,
            3.3e-07,
            0.60159,

            0.05912,
            4.277865e-07,
            0.0353,
            1.86e-06,
            0.0264,
            0.0174,
            7.93e-09,
            0.7109,

            0.007608,
            2.270677e-05,
            0.00321,
            1.82e-05,
            0.00437,
            0.00332,
            2.83e-06,
            0.52927,

            0.0002572,
            7.51468e-07,
            4.46e-05,
            8.77e-06,
            1.17e-05,
            0.476,
            9.30e-15,
            0.910,

            1.157e-06,
            3.975497e-14,
            2.73e-08,
            2.61e-14,
            7.35e-09,
            4.07e-12,
```

```
4.07e-12,
0.00268,
0.18190,

0.001737,
0.0001638551,
0.000283,
2.94e-07,
0.000651,
0.001564,
9.1e-05,
0.646243,

1.611e-08,
2.985583e-13,
1.55e-09,
9.90e-15,
5.79e-10,
3.66e-09,
9.24e-05,
0.239,

0.001031,
0.004140057,
0.000128,
0.000296,
0.000266,
0.035635,
2.25e-06,
0.112823,

0.2677,
8.11446e-06,
0.163428,
0.000952,
0.0751,
0.0240,
3.3e-06,
0.1844,

0.0008604,
6.595581e-11,
0.000124,
3.41e-11,
0.000131,
3.35e-06,
1.62e-05,
0.741413,

6.184e-09,
0.003321533,
9.62e-12,
0.000328,
3.89e-12,
0.00512,
0.00234,
0.22601,

0.2488,
1.423294e-05,
0.14,
1.51e-05,
0.16685,
0.00519,
1.01e-05,
0.74887,

0.2164,
1.81071e-08,
0.179,
6.66e-11,
0.256,
6.63e-09,
```

```
            0.220,
            0.118,

            0.0001921,
            1.503403e-09,
            2.21e-05,
            1.15e-08,
            1.17e-05,
            1.41e-06,
            4.04e-05,
            0.667,

            0.00404,
            0.003448444,
            0.000176,
            0.000972,
            0.000131,
            0.001926,
            0.385582,
            0.018061,

            0.6218,
            7.875311e-09,
            0.00845,
            2e-09,
            0.00358,
            0.02191,
            8.95e-10,
            0.44408,

            0.1082,
            0.0009081711,
            0.03251,
            0.00882,
            0.06960,
            0.01773,
            0.00188,
            0.08337,

            0.6176,
            1.316455e-06,
            0.528,
            4.03e-06,
            0.239,
            0.265,
            6.12e-11,
            0.200
)


facet.p.adjust = p.adjust(facet.p, method = "BH", n = length(facet.p))
facet.p.adjust = round(facet.p.adjust, 3)

## Each line corresponds to each of the 25 facets. First two p-values correspond to dz and r, respectively.
## Next six p-values correspond to: (a) b0 and b1 of base model, and (b) b0, b1, b2, b3 of moderation model.

split(facet.p.adjust, ceiling(seq_along(facet.p.adjust)/8))
```

```
## $`1`
## [1] 0.652 0.000 0.558 0.000 0.218 0.020 0.000 0.165
##
## $`2`
## [1] 0.324 0.000 0.260 0.000 0.143 0.016 0.000 0.448
##
## $`3`
## [1] 0.006 0.001 0.001 0.000 0.001 0.001 0.004 0.699
##
## $`4`
## [1] 0.000 0.000 0.000 0.000 0.000 0.190 0.000 0.597
##
## $`5`
## [1] 0.003 0.003 0.001 0.000 0.002 0.326 0.000 0.583
```

```
##
## $`6`
## [1] 0.011 0.000 0.004 0.000 0.006 0.000 0.000 0.956
##
## $`7`
## [1] 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.286
##
## $`8`
## [1] 0.020 0.002 0.003 0.001 0.002 0.047 0.000 0.637
##
## $`9`
## [1] 0.079 0.000 0.048 0.000 0.037 0.025 0.000 0.725
##
## $`10`
## [1] 0.011 0.000 0.005 0.000 0.007 0.005 0.000 0.569
##
## $`11`
## [1] 0.001 0.000 0.000 0.000 0.000 0.520 0.000 0.915
##
## $`12`
## [1] 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.222
##
## $`13`
## [1] 0.003 0.000 0.001 0.000 0.001 0.003 0.000 0.670
##
## $`14`
## [1] 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.278
##
## $`15`
## [1] 0.002 0.006 0.000 0.001 0.001 0.048 0.000 0.146
##
## $`16`
## [1] 0.302 0.000 0.204 0.002 0.099 0.034 0.000 0.224
##
## $`17`
## [1] 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.753
##
## $`18`
## [1] 0.000 0.005 0.000 0.001 0.000 0.008 0.004 0.266
##
## $`19`
## [1] 0.286 0.000 0.177 0.000 0.207 0.008 0.000 0.756
##
## $`20`
## [1] 0.259 0.000 0.220 0.000 0.293 0.000 0.260 0.151
##
## $`21`
## [1] 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.688
##
## $`22`
## [1] 0.006 0.006 0.000 0.002 0.000 0.003 0.428 0.026
##
## $`23`
## [1] 0.651 0.000 0.013 0.000 0.006 0.031 0.000 0.488
##
## $`24`
## [1] 0.141 0.002 0.045 0.013 0.093 0.025 0.003 0.110
##
## $`25`
## [1] 0.650 0.000 0.569 0.000 0.278 0.301 0.000 0.241
```

```r
pd.p = c( 4.011e-07, # dz for Antisocial PD
          5.197e-10, # r for Antisocial PD
          7.04e-08,  # b0 for Antisocial PD base model
          6.38e-12,  # b1 for Antisocial PD base model
          5.53e-08,  # b0 for Antisocial PD moderation model
          5.69e-05,  # b1 for Antisocial PD moderation model
          4.57e-08,  # b2 for Antisocial PD moderation model
          0.841,     # b3 for Antisocial PD moderation model, etc.

          0.3902,
          7.167e-11,
          0.3,
          3.88e-11,
          0.128,
          0.208,
          1.03e-14,
          0.318 ,

          0.0007019,
          7.685e-14,
          0.000181,
          8.14e-15,
          0.000288 ,
          1.18e-05,
          1.05e-09,
          0.921131 ,

          0.001822,
          1.535e-05,
          0.00044 ,
          1.39e-05,
          0.000516,
          0.000614,
          3.47e-05,
          0.593239 ,

          7.626e-06,
          2.398e-06,
          5.60e-08,
          1.56e-06,
          1.12e-08,
          0.0802,
          1.50e-09,
          0.4396,

          0.03426,
          1.496e-05,
          0.0076,
          3.64e-05,
          0.00114,
          0.50443,
          9.63e-14,
          0.22524)


pd.p.adjust = p.adjust(pd.p, method = "BH", n = length(pd.p))
pd.p.adjust = round(pd.p.adjust, 3)

## Each line corresponds to each of the six PDs. First two p-values correspond to dz and r, respectively.
## Next six p-values correspond to: (a) b0 and b1 of base model, and (b) b0, b1, b2, b3 of moderation model.

split(pd.p.adjust, ceiling(seq_along(pd.p.adjust)/8))
```

```
## $`1`
## [1] 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.859
##
## $`2`
## [1] 0.436 0.000 0.351 0.000 0.162 0.256 0.000 0.363
##
## $`3`
## [1] 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.921
##
## $`4`
## [1] 0.003 0.000 0.001 0.000 0.001 0.001 0.000 0.619
##
## $`5`
## [1] 0.000 0.000 0.000 0.000 0.000 0.104 0.000 0.480
##
## $`6`
## [1] 0.046 0.000 0.010 0.000 0.002 0.538 0.000 0.270
```