Main Analyses

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Import Packages

```
library(ppcor)
```

```
## Loading required package: MASS
```

```
library(lavaan)
```

```
## This is lavaan 0.6-6
```

```
## lavaan is BETA software! Please report any bugs.
```

Import Data

```
source("Data-Processing.R")
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.2     v dplyr   1.0.6
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   2.0.2     v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## x dplyr::select() masks MASS::select()
```

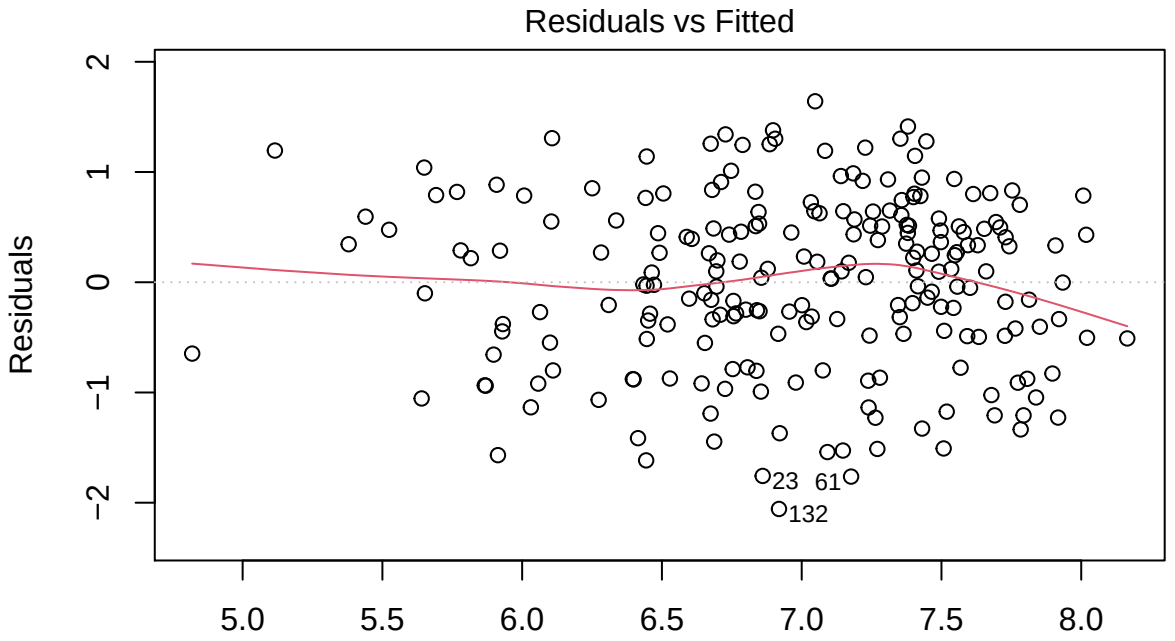
Linear Regression of Substantive Predictors on MRAI-R Total Scores

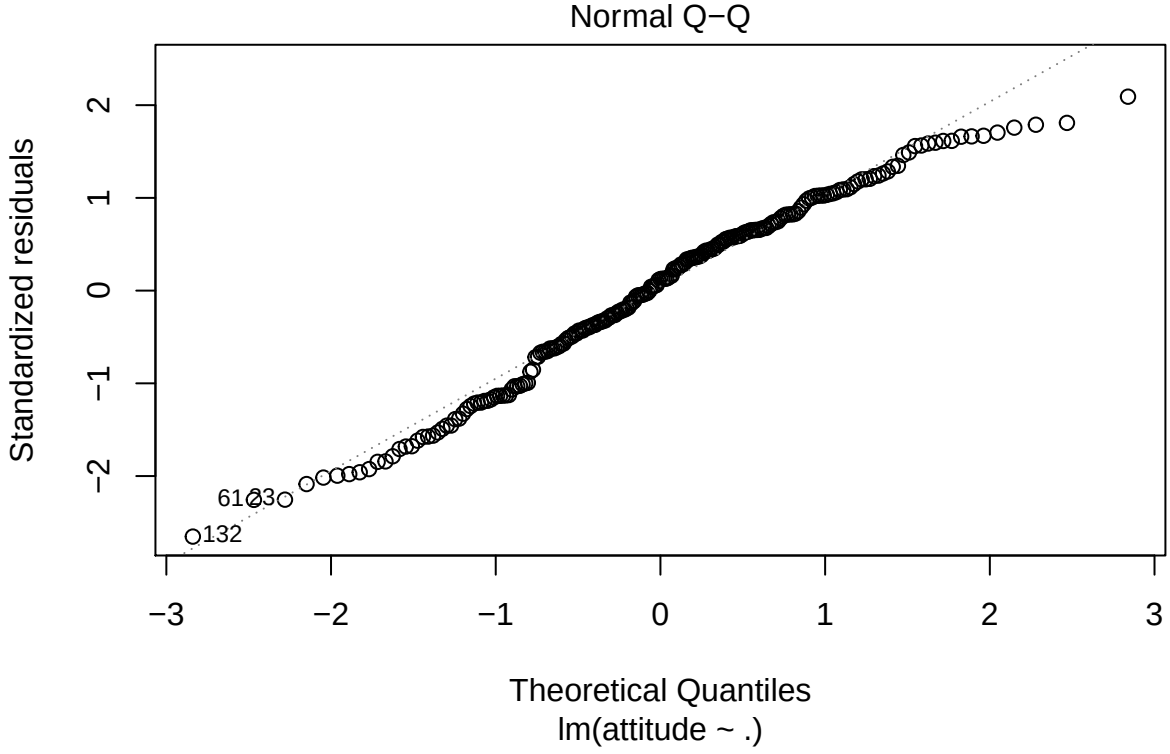
We will start by subsetting the data to only include the predictors, then fitting the model.

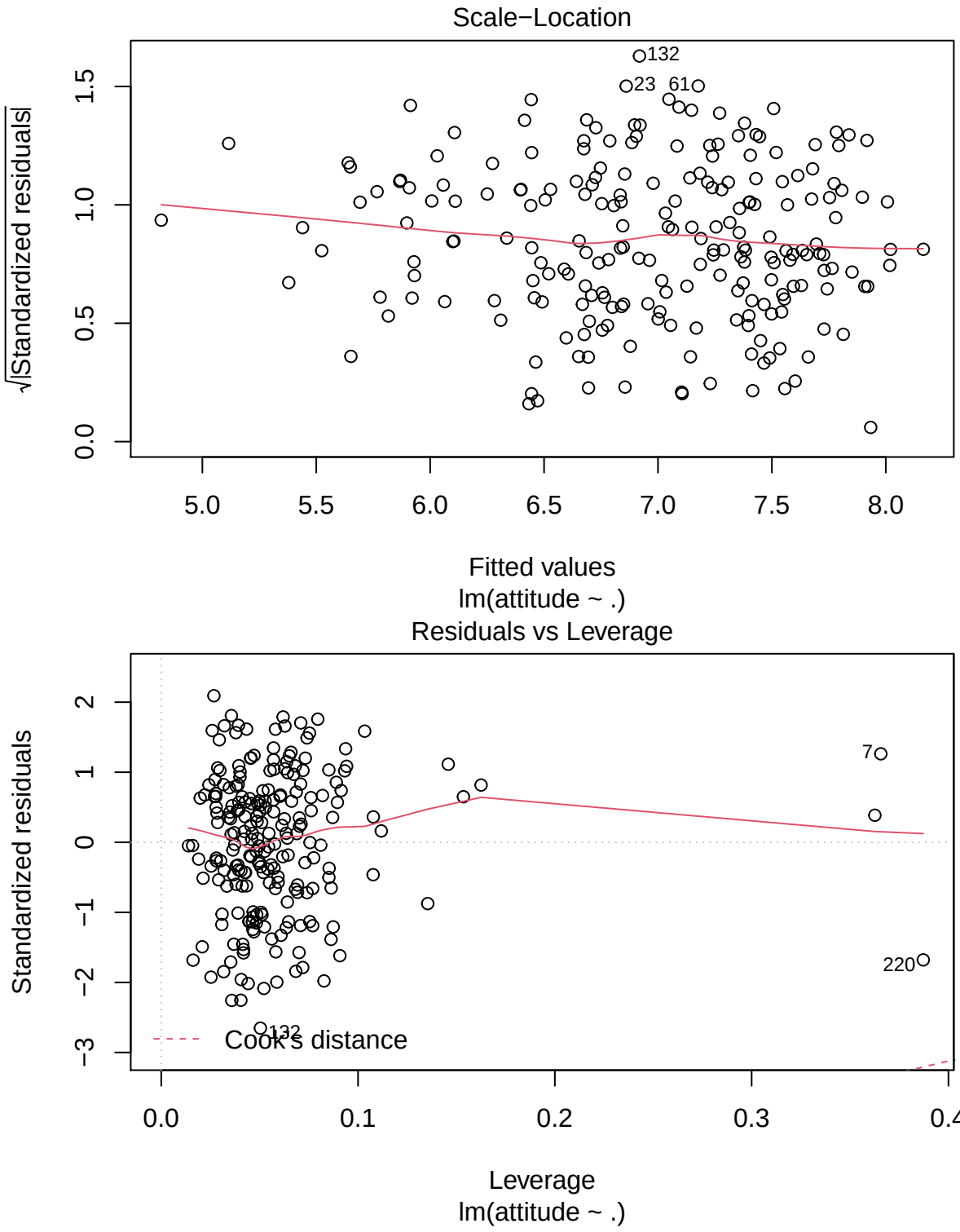
```
regression.model.df <- analysis.df %>%
  select(attitude, gender.male, gender.non.binary, non.white, social.desirability.c,
         quantity.c, quality.c, knowledge.c, openness.c,
         conscientiousness.c, extroversion.c, agreeableness.c, neuroticism.c)

regression.model <- lm(attitude ~ ., data = regression.model.df)
```

Plot the model assumptions.

```
plot(regression.model)
```


Residuals vs Fitted
Residuals
Fitted values
lm(attitude ~ .)
23
61
132


Normal Q−Q
Standardized residuals
Theoretical Quantiles
lm(attitude ~ .)
61
23
132



The model assumptions appear to be reasonable. Now we can look at the model coefficients.

```
summary(regression.model)
```

```
##
## Call:
## lm(formula = attitude ~ ., data = regression.model.df)
```

```
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.05665 -0.48885  0.09568  0.55091  1.64153
##
## Coefficients:
##                          Estimate Std. Error t value Pr(>|t|)
## (Intercept)               7.09139    0.07688  92.240  < 2e-16 ***
## gender.male              -0.33810    0.12974  -2.606  0.00982 **
## gender.non.binary         0.58690    0.46982   1.249  0.21300
## non.white                -0.09764    0.12457  -0.784  0.43404
## social.desirability.c    -0.01508    0.01322  -1.140  0.25549
## quantity.c                0.03092    0.04917   0.629  0.53012
## quality.c                 0.20635    0.04530   4.555 8.92e-06 ***
## knowledge.c               0.08732    0.04625   1.888  0.06042 .
## openness.c                0.22093    0.09681   2.282  0.02350 *
## conscientiousness.c       0.04258    0.10197   0.418  0.67668
## extroversion.c           -0.05392    0.07104  -0.759  0.44874
## agreeableness.c           0.23377    0.11818   1.978  0.04923 *
## neuroticism.c            -0.08222    0.08050  -1.021  0.30827
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7956 on 208 degrees of freedom
## Multiple R-squared:  0.3991, Adjusted R-squared:  0.3645
## F-statistic: 11.51 on 12 and 208 DF,  p-value: < 2.2e-16
```

Let's look at the standardized predictors to see the relative strength of each predictor.

```
# create a temporary DataFrame to standardize quantitative predictors
temp2 <- df %>%
  select(social.desirability, openness, conscientiousness, extroversion,
         agreeableness, neuroticism,  quantity, quality,
         knowledge) %>%
  scale(center=TRUE, scale=TRUE)

# add a .s after the name of each predictor to identify it as standardized
temp2 <- as.data.frame(temp2, row.names = NULL)
temp2 <- set_names(temp2, paste0(names(temp2), ".s"))

# merge dataframes and recode gender and ethnicity
standardized.df <- df %>%
  mutate(male = recode(gender,
                       "male" = 1,
                       .default = 0)) %>%
  mutate(non.white = recode(ethnicity,
                       "white" = 0,
                       .default = 1)) %>%
  select(gender, attitude, male, non.white) %>%
  bind_cols(temp2) %>%
  filter(gender != "non-binary") %>%
  drop_na(attitude, social.desirability.s, openness.s,
                       conscientiousness.s, extroversion.s, agreeableness.s, neuroticism.s,
                       quantity.s, quality.s, knowledge.s)
```

```r
# create the new dataframes with the standardized predictors
standardized.regression.model.df <- standardized.df %>%
  select(attitude, male, non.white, social.desirability.s,
         quantity.s, quality.s, knowledge.s, openness.s,
         conscientiousness.s, extroversion.s, agreeableness.s, neuroticism.s)

# fit the model
standardized.regression.model <- lm(attitude ~ ., data = standardized.regression.model.df)

# examine model coefficients
summary(standardized.regression.model)
```

```
##
## Call:
## lm(formula = attitude ~ ., data = standardized.regression.model.df)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.04482 -0.49297  0.08601  0.53739  1.66613
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)            7.09667    0.07682  92.382  < 2e-16 ***
## male                  -0.34331    0.12945  -2.652  0.00862 **
## non.white             -0.11135    0.12478  -0.892  0.37324
## social.desirability.s -0.09157    0.06999  -1.308  0.19225
## quantity.s             0.05541    0.07987   0.694  0.48858
## quality.s              0.35093    0.07609   4.612 6.99e-06 ***
## knowledge.s            0.15103    0.08054   1.875  0.06220 .
## openness.s             0.11466    0.05705   2.010  0.04575 *
## conscientiousness.s    0.03062    0.06252   0.490  0.62476
## extroversion.s        -0.03078    0.05909  -0.521  0.60298
## agreeableness.s        0.12891    0.06858   1.880  0.06155 .
## neuroticism.s         -0.08262    0.06511  -1.269  0.20587
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7935 on 206 degrees of freedom
## Multiple R-squared:  0.4004, Adjusted R-squared:  0.3684
## F-statistic: 12.51 on 11 and 206 DF,  p-value: < 2.2e-16
```

Finally, we can look at the partial correlations for each predictor.

```r
pcor(regression.model.df)
```

```
## $estimate
##                          attitude  gender.male gender.non.binary    non.white
## attitude               1.00000000 -0.177817095       0.086293464 -0.054267809
## gender.male           -0.17781710  1.000000000      -0.051243075 -0.137647812
## gender.non.binary      0.08629346 -0.051243075       1.000000000  0.002984958
## non.white             -0.05426781 -0.137647812       0.002984958  1.000000000
## social.desirability.c -0.07881638  0.005813741       0.006788205  0.139547535
## quantity.c             0.04356358  0.007778381       0.082867461  0.030428910
## quality.c              0.30115880 -0.033022116      -0.047261817  0.118887386
## knowledge.c            0.12979835  0.020122008      -0.061628120 -0.088398145
```

```
## openness.c             0.15628576  0.036506203       0.032631675  0.189206306
## conscientiousness.c    0.02894259 -0.026357603       0.089497351 -0.160674926
## extroversion.c        -0.05255069 -0.076987884      -0.045846744 -0.056144305
## agreeableness.c        0.13588795 -0.195103005      -0.061753101 -0.182448349
## neuroticism.c         -0.07064204 -0.221731831       0.051532256 -0.131327745
##                      social.desirability.c   quantity.c   quality.c
## attitude                       -0.078816384  0.043563583  0.30115880
## gender.male                     0.005813741  0.007778381 -0.03302212
## gender.non.binary               0.006788205  0.082867461 -0.04726182
## non.white                       0.139547535  0.030428910  0.11888739
## social.desirability.c           1.000000000  0.025521327  0.05288116
## quantity.c                      0.025521327  1.000000000  0.24760914
## quality.c                       0.052881161  0.247609140  1.00000000
## knowledge.c                     0.107604906  0.493295054  0.26474359
## openness.c                      0.035442823  0.108849815 -0.05002609
## conscientiousness.c             0.301923099 -0.018417521  0.06652677
## extroversion.c                  0.057070406  0.120143346  0.03495130
## agreeableness.c                 0.248128096 -0.019551343  0.23062714
## neuroticism.c                  -0.265572568  0.118011647  0.08045430
##                     knowledge.c   openness.c conscientiousness.c
## attitude             0.12979835  0.156285758          0.02894259
## gender.male          0.02012201  0.036506203         -0.02635760
## gender.non.binary   -0.06162812  0.032631675          0.08949735
## non.white           -0.08839815  0.189206306         -0.16067493
## social.desirability.c  0.10760491  0.035442823          0.30192310
## quantity.c           0.49329505  0.108849815         -0.01841752
## quality.c            0.26474359 -0.050026092          0.06652677
## knowledge.c          1.00000000  0.021581194         -0.07954737
## openness.c           0.02158119  1.000000000         -0.04555959
## conscientiousness.c -0.07954737 -0.045559587          1.00000000
## extroversion.c       0.04150741  0.039185295          0.12843826
## agreeableness.c     -0.12867521  0.069585802          0.08054791
## neuroticism.c       -0.05383948  0.005454746         -0.08832788
##                     extroversion.c agreeableness.c neuroticism.c
## attitude                -0.05255069      0.13588795  -0.070642041
## gender.male             -0.07698788     -0.19510300  -0.221731831
## gender.non.binary       -0.04584674     -0.06175310   0.051532256
## non.white               -0.05614431     -0.18244835  -0.131327745
## social.desirability.c    0.05707041      0.24812810  -0.265572568
## quantity.c               0.12014335     -0.01955134   0.118011647
## quality.c                0.03495130      0.23062714   0.080454300
## knowledge.c              0.04150741     -0.12867521  -0.053839478
## openness.c               0.03918530      0.06958580   0.005454746
## conscientiousness.c      0.12843826      0.08054791  -0.088327881
## extroversion.c           1.00000000      0.01775349  -0.153895940
## agreeableness.c          0.01775349      1.00000000  -0.246659075
## neuroticism.c           -0.15389594     -0.24665907   1.000000000
##
## $p.value
##                          attitude gender.male gender.non.binary   non.white
## attitude             0.000000e+00 0.009821699         0.2129952 0.434039446
## gender.male          9.821699e-03 0.000000000         0.4601281 0.046338829
## gender.non.binary    2.129952e-01 0.460128145         0.0000000 0.965703081
## non.white            4.340394e-01 0.046338829         0.9657031 0.000000000
```

```
## social.desirability.c 2.554921e-01 0.933257628         0.9221035 0.043377113
## quantity.c            5.301177e-01 0.910785075         0.2317927 0.661077218
## quality.c             8.924596e-06 0.634210122         0.4957566 0.085676424
## knowledge.c           6.042485e-02 0.771904610         0.3742231 0.202003613
## openness.c            2.349947e-02 0.598858385         0.6382260 0.005952589
## conscientiousness.c   6.766770e-01 0.704135351         0.1964290 0.019824129
## extroversion.c        4.487444e-01 0.266718780         0.5087634 0.418290435
## agreeableness.c       4.923150e-02 0.004543167         0.3732532 0.008038932
## neuroticism.c         3.082677e-01 0.001219084         0.4575969 0.057433412
##                       social.desirability.c   quantity.c    quality.c
## attitude                      2.554921e-01 5.301177e-01 8.924596e-06
## gender.male                   9.332576e-01 9.107851e-01 6.342101e-01
## gender.non.binary             9.221035e-01 2.317927e-01 4.957566e-01
## non.white                     4.337711e-02 6.610772e-01 8.567642e-02
## social.desirability.c         0.000000e+00 7.131032e-01 4.458927e-01
## quantity.c                    7.131032e-01 0.000000e+00 2.907923e-04
## quality.c                     4.458927e-01 2.907923e-04 0.000000e+00
## knowledge.c                   1.200526e-01 2.810278e-14 1.031270e-04
## openness.c                    6.095540e-01 1.158010e-01 4.708655e-01
## conscientiousness.c           8.446587e-06 7.907593e-01 3.373706e-01
## extroversion.c                4.106426e-01 8.239640e-02 6.145262e-01
## agreeableness.c               2.820979e-04 7.782029e-01 7.580610e-04
## neuroticism.c                 9.790395e-05 8.802486e-02 2.457162e-01
##                        knowledge.c  openness.c conscientiousness.c
## attitude              6.042485e-02 0.023499469        6.766770e-01
## gender.male           7.719046e-01 0.598858385        7.041354e-01
## gender.non.binary     3.742231e-01 0.638225950        1.964290e-01
## non.white             2.020036e-01 0.005952589        1.982413e-02
## social.desirability.c 1.200526e-01 0.609554022        8.446587e-06
## quantity.c            2.810278e-14 0.115801038        7.907593e-01
## quality.c             1.031270e-04 0.470865486        3.373706e-01
## knowledge.c           0.000000e+00 0.755868472        2.510965e-01
## openness.c            7.558685e-01 0.000000000        5.114243e-01
## conscientiousness.c   2.510965e-01 0.511424312        0.000000e+00
## extroversion.c        5.497284e-01 0.572293842        6.319173e-02
## agreeableness.c       6.270234e-02 0.315575164        2.451654e-01
## neuroticism.c         4.376814e-01 0.937370236        2.023638e-01
##                       extroversion.c agreeableness.c neuroticism.c
## attitude                 0.44874435    0.0492314991  3.082677e-01
## gender.male              0.26671878    0.0045431673  1.219084e-03
## gender.non.binary        0.50876337    0.3732531572  4.575969e-01
## non.white                0.41829043    0.0080389325  5.743341e-02
## social.desirability.c    0.41064263    0.0002820979  9.790395e-05
## quantity.c               0.08239640    0.7782029254  8.802486e-02
## quality.c                0.61452619    0.0007580610  2.457162e-01
## knowledge.c              0.54972841    0.0627023441  4.376814e-01
## openness.c               0.57229384    0.3155751639  9.373702e-01
## conscientiousness.c      0.06319173    0.2451654194  2.023638e-01
## extroversion.c           0.00000000    0.7981384274  2.573714e-02
## agreeableness.c          0.79813843    0.0000000000  3.073583e-04
## neuroticism.c            0.02573714    0.0003073583  0.000000e+00
##
## $statistic
##                         attitude gender.male gender.non.binary   non.white
```

```
## attitude               0.0000000 -2.60604572        1.24920186 -0.78381648
## gender.male           -2.6060457  0.00000000       -0.74001035 -2.00426308
## gender.non.binary      1.2492019 -0.74001035        0.00000000  0.04304987
## non.white             -0.7838165 -2.00426308        0.04304987  0.00000000
## social.desirability.c -1.1402532  0.08384838        0.09790314  2.03247013
## quantity.c             0.6288800  0.11218479        1.19925627  0.43905530
## quality.c              4.5548368 -0.47651162       -0.68238215  1.72686563
## knowledge.c            1.8879497  0.29026249       -0.89050608 -1.27990673
## openness.c             2.2820271  0.52685113        0.47087148  2.77896765
## conscientiousness.c    0.4175909 -0.38026688        1.29594972 -2.34779069
## extroversion.c        -0.7589455 -1.11364031       -0.66190715 -0.81100391
## agreeableness.c        1.9781528 -2.86894883       -0.89231892 -2.67622679
## neuroticism.c         -1.0213656 -3.27949620        0.74419756 -1.91058323
##                       social.desirability.c quantity.c  quality.c knowledge.c
## attitude                         -1.14025321  0.6288800  4.5548368   1.8879497
## gender.male                       0.08384838  0.1121848 -0.4765116   0.2902625
## gender.non.binary                 0.09790314  1.1992563 -0.6823822  -0.8905061
## non.white                         2.03247013  0.4390553  1.7268656  -1.2799067
## social.desirability.c             0.00000000  0.3681937  0.7637316   1.5609634
## quantity.c                        0.36819374  0.0000000  3.6858471   8.1787709
## quality.c                         0.76373155  3.6858471  0.0000000   3.9594646
## knowledge.c                       1.56096339  8.1787709  3.9594646   0.0000000
## openness.c                        0.51148502  1.5792379 -0.7223911   0.3113209
## conscientiousness.c               4.56755418 -0.2656663  0.9615930  -1.1508955
## extroversion.c                    0.82442478  1.7453745  0.5043829   0.5991447
## agreeableness.c                   3.69407834 -0.2820274  3.4183018  -1.8713371
## neuroticism.c                    -3.97280189  1.7139650  1.1641021  -0.7776118
##                        openness.c conscientiousness.c extroversion.c
## attitude                2.28202708           0.4175909     -0.7589455
## gender.male             0.52685113          -0.3802669     -1.1136403
## gender.non.binary       0.47087148           1.2959497     -0.6619071
## non.white               2.77896765          -2.3477907     -0.8110039
## social.desirability.c   0.51148502           4.5675542      0.8244248
## quantity.c              1.57923786          -0.2656663      1.7453745
## quality.c              -0.72239106           0.9615930      0.5043829
## knowledge.c             0.31132091          -1.1508955      0.5991447
## openness.c              0.00000000          -0.6577527      0.5655727
## conscientiousness.c    -0.65775270           0.0000000      1.8678333
## extroversion.c          0.56557275           1.8678333      0.0000000
## agreeableness.c         1.00601932           1.1654654      0.2560848
## neuroticism.c           0.07867063          -1.2788814     -2.2462786
##                       agreeableness.c neuroticism.c
## attitude                    1.9781528   -1.02136564
## gender.male                -2.8689488   -3.27949620
## gender.non.binary          -0.8923189    0.74419756
## non.white                  -2.6762268   -1.91058323
## social.desirability.c       3.6940783   -3.97280189
## quantity.c                 -0.2820274    1.71396500
## quality.c                   3.4183018    1.16410209
## knowledge.c                -1.8713371   -0.77761184
## openness.c                  1.0060193    0.07867063
## conscientiousness.c         1.1654654   -1.27888138
## extroversion.c              0.2560848   -2.24627860
## agreeableness.c             0.0000000   -3.67078656
```

```
## neuroticism.c              -3.6707866    0.00000000
##
## $n
## [1] 221
##
## $gp
## [1] 11
##
## $method
## [1] "pearson"
```

Mediation Model

We will create the mediation model and fit it to the data.

```
# set seed for reproducibility
set.seed(760120)

med_model <- '
  # direct effects
  quality ~ b1 * openness + b2 * agreeableness
  attitude ~ b3 * openness + b4 * agreeableness + b5 * quality
  # indirect effects
  indirect_openness := b1 * b5
  indirect_agreeableness := b2 * b5
  # total effects
  total_openness := b3 + (b1 * b5)
  total_agreeableness := b4 + (b2 * b5)
'

med_model_fit <- sem(med_model, data = analysis.df,
                         se = "bootstrap", bootstrap = 10000)
```

Examine the overall model fit.

```
inspect(med_model_fit, "r2")
```

```
##  quality attitude
##    0.173    0.349
```

Examine the unstandardized model coefficients.

```
summary(med_model_fit, fit.measures=TRUE, ci=TRUE)
```

```
## lavaan 0.6-6 ended normally after 23 iterations
##
##   Estimator                                         ML
##   Optimization method                           NLMINB
##   Number of free parameters                          7
##
##   Number of observations                           221
##
## Model Test User Model:
##
##   Test statistic                                 0.000
##   Degrees of freedom                                 0
```

```
##
## Model Test Baseline Model:
##
##   Test statistic                                136.912
##   Degrees of freedom                                  5
##   P-value                                         0.000
##
## User Model versus Baseline Model:
##
##   Comparative Fit Index (CFI)                     1.000
##   Tucker-Lewis Index (TLI)                        1.000
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)               -673.443
##   Loglikelihood unrestricted model (H1)       -673.443
##
##   Akaike (AIC)                                1360.885
##   Bayesian (BIC)                              1384.673
##   Sample-size adjusted Bayesian (BIC)         1362.489
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.000
##   90 Percent confidence interval - lower         0.000
##   90 Percent confidence interval - upper         0.000
##   P-value RMSEA <= 0.05                             NA
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.000
##
## Parameter Estimates:
##
##   Standard errors                             Bootstrap
##   Number of requested bootstrap draws             10000
##   Number of successful bootstrap draws            10000
##
## Regressions:
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##   quality ~
##     openness  (b1)    0.410    0.186    2.211    0.027    0.036    0.763
##     agreblnss (b2)    1.075    0.175    6.144    0.000    0.745    1.432
##   attitude ~
##     openness  (b3)    0.243    0.087    2.782    0.005    0.069    0.412
##     agreblnss (b4)    0.244    0.097    2.516    0.012    0.055    0.433
##     quality   (b5)    0.279    0.036    7.749    0.000    0.216    0.356
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##    .quality           2.355    0.350    6.725    0.000    1.680    3.071
##    .attitude          0.646    0.051   12.576    0.000    0.535    0.739
##
## Defined Parameters:
```

```
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##     indirect_pnnss    0.114    0.056    2.031    0.042    0.009    0.234
##     indrct_grblnss    0.299    0.057    5.262    0.000    0.197    0.418
##     total_openness    0.357    0.102    3.485    0.000    0.149    0.555
##     total_agrblnss    0.544    0.106    5.129    0.000    0.330    0.751
```

Examine the standardized model coefficients.

```
summary(med_model_fit, fit.measures=TRUE, ci=TRUE, standardized = TRUE)
```

```
## lavaan 0.6-6 ended normally after 23 iterations
##
##   Estimator                                         ML
##   Optimization method                           NLMINB
##   Number of free parameters                          7
##
##   Number of observations                           221
##
## Model Test User Model:
##
##   Test statistic                                 0.000
##   Degrees of freedom                                 0
##
## Model Test Baseline Model:
##
##   Test statistic                               136.912
##   Degrees of freedom                                 5
##   P-value                                        0.000
##
## User Model versus Baseline Model:
##
##   Comparative Fit Index (CFI)                    1.000
##   Tucker-Lewis Index (TLI)                       1.000
##
## Loglikelihood and Information Criteria:
##
##   Loglikelihood user model (H0)               -673.443
##   Loglikelihood unrestricted model (H1)       -673.443
##
##   Akaike (AIC)                                1360.885
##   Bayesian (BIC)                              1384.673
##   Sample-size adjusted Bayesian (BIC)         1362.489
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.000
##   90 Percent confidence interval - lower         0.000
##   90 Percent confidence interval - upper         0.000
##   P-value RMSEA <= 0.05                             NA
##
## Standardized Root Mean Square Residual:
##
##   SRMR                                           0.000
##
## Parameter Estimates:
```

```
##
##   Standard errors                             Bootstrap
##   Number of requested bootstrap draws             10000
##   Number of successful bootstrap draws            10000
##
## Regressions:
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##   quality ~
##     openness  (b1)    0.410    0.186    2.211    0.027    0.036    0.763
##     agreblnss (b2)    1.075    0.175    6.144    0.000    0.745    1.432
##   attitude ~
##     openness  (b3)    0.243    0.087    2.782    0.005    0.069    0.412
##     agreblnss (b4)    0.244    0.097    2.516    0.012    0.055    0.433
##     quality   (b5)    0.279    0.036    7.749    0.000    0.216    0.356
##    Std.lv  Std.all
##
##     0.410    0.143
##     1.075    0.372
##
##     0.243    0.143
##     0.244    0.143
##     0.279    0.472
##
## Variances:
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##    .quality           2.355    0.350    6.725    0.000    1.680    3.071
##    .attitude          0.646    0.051   12.576    0.000    0.535    0.739
##    Std.lv  Std.all
##     2.355    0.827
##     0.646    0.651
##
## Defined Parameters:
##                    Estimate  Std.Err  z-value  P(>|z|) ci.lower ci.upper
##     indirect_pnnss    0.114    0.056    2.031    0.042    0.009    0.234
##     indrct_grblnss    0.299    0.057    5.262    0.000    0.197    0.418
##     total_openness    0.357    0.102    3.485    0.000    0.149    0.555
##     total_agrblnss    0.544    0.106    5.129    0.000    0.330    0.751
##    Std.lv  Std.all
##     0.114    0.067
##     0.299    0.176
##     0.357    0.210
##     0.544    0.319
```