6060 Practice: RMarkdown

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1 Correlation Table

Below are the correlations among the variables, not dependent on gender.

```
## 'data.frame':    2800 obs. of  28 variables:
##  $ A1       : int  2 2 5 4 2 6 2 4 4 2 ...
##  $ A2       : int  4 4 4 4 3 6 5 3 3 5 ...
##  $ A3       : int  3 5 5 6 3 5 5 1 6 6 ...
##  $ A4       : int  4 2 4 5 4 6 3 5 3 6 ...
##  $ A5       : int  4 5 4 5 5 5 5 1 3 5 ...
##  $ C1       : int  2 5 4 4 4 6 5 3 6 6 ...
##  $ C2       : int  3 4 5 4 4 6 4 2 6 5 ...
##  $ C3       : int  3 4 4 3 5 6 4 4 3 6 ...
##  $ C4       : int  4 3 2 5 3 1 2 2 4 2 ...
##  $ C5       : int  4 4 5 5 2 3 3 4 5 1 ...
##  $ E1       : int  3 1 2 5 2 2 4 3 5 2 ...
##  $ E2       : int  3 1 4 3 2 1 3 6 3 2 ...
##  $ E3       : int  3 6 4 4 5 6 4 4 NA 4 ...
##  $ E4       : int  4 4 4 4 4 5 5 2 4 5 ...
##  $ E5       : int  4 3 5 4 5 6 5 1 3 5 ...
##  $ N1       : int  3 3 4 2 2 3 1 6 5 5 ...
##  $ N2       : int  4 3 5 5 3 5 2 3 5 5 ...
##  $ N3       : int  2 3 4 2 4 2 2 2 2 5 ...
##  $ N4       : int  2 5 2 4 4 2 1 6 3 2 ...
##  $ N5       : int  3 5 3 1 3 3 1 4 3 4 ...
##  $ O1       : int  3 4 4 3 3 4 5 3 6 5 ...
##  $ O2       : int  6 2 2 3 3 3 2 2 6 1 ...
##  $ O3       : int  3 4 5 4 4 5 5 4 6 5 ...
##  $ O4       : int  4 3 5 3 3 6 6 5 6 5 ...
##  $ O5       : int  3 3 2 5 3 1 1 3 1 2 ...
##  $ gender   : int  1 2 2 2 1 2 1 1 1 2 ...
##  $ education: int  NA NA NA NA NA 3 NA 2 1 NA ...
##  $ age      : int  16 18 17 17 17 21 18 19 19 17 ...

## Some items ( E1 E2 ) were negatively correlated with the total scale and
## probably should be reversed.
## To do this, run the function again with the 'check.keys=TRUE' option

## 'data.frame':    2800 obs. of  6 variables:
##  $ age          : int  16 18 17 17 17 21 18 19 19 17 ...
##  $ education    : int  NA NA NA NA NA 3 NA 2 1 NA ...
##  $ gender       : Factor w/ 2 levels "Male","Female": 1 2 2 2 1 2 1 1 1 2 ...
##  $ neuroticism  : num  2.8 3.8 3.6 2.8 3.2 3 1.4 4.2 3.6 4.2 ...
##  $ extraversion : num  3.4 3 3.8 4 3.6 4 4.2 3.2 3.75 3.6 ...
##  $ agreeableness: num  4 4.2 3.8 4.6 4 4.6 4.6 2.6 3.6 5.4 ...

##
```

```
##
## Table 1
##
## Means, standard deviations, and correlations with confidence intervals
##
##
##   Variable         M     SD    1            2            3
##   1. age           28.78 11.13
##
##   2. education     3.19  1.11  .24**
##                                [.21, .28]
##
##   3. neuroticism   3.16  1.20  -.12**       -.05*
##                                [-.15, -.08] [-.09, -.01]
##
##   4. extraversion  3.79  0.54  -.03         .00          .04*
##                                [-.07, .01]  [-.03, .04]  [.00, .08]
##
##   5. agreeableness 4.65  0.90  .19**        .05*         -.19**
##                                [.15, .22]   [.01, .08]   [-.22, -.15]
##
##   4
##
##
##
##
##
##
##
##
##
##
##
##
##   .21**
##   [.17, .24]
##
##
## Note. * indicates p < .05; ** indicates p < .01.
## M and SD are used to represent mean and standard deviation, respectively.
## Values in square brackets indicate the 95% confidence interval.
## The confidence interval is a plausible range of population correlations
## that could have caused the sample correlation (Cumming, 2014).
##
```

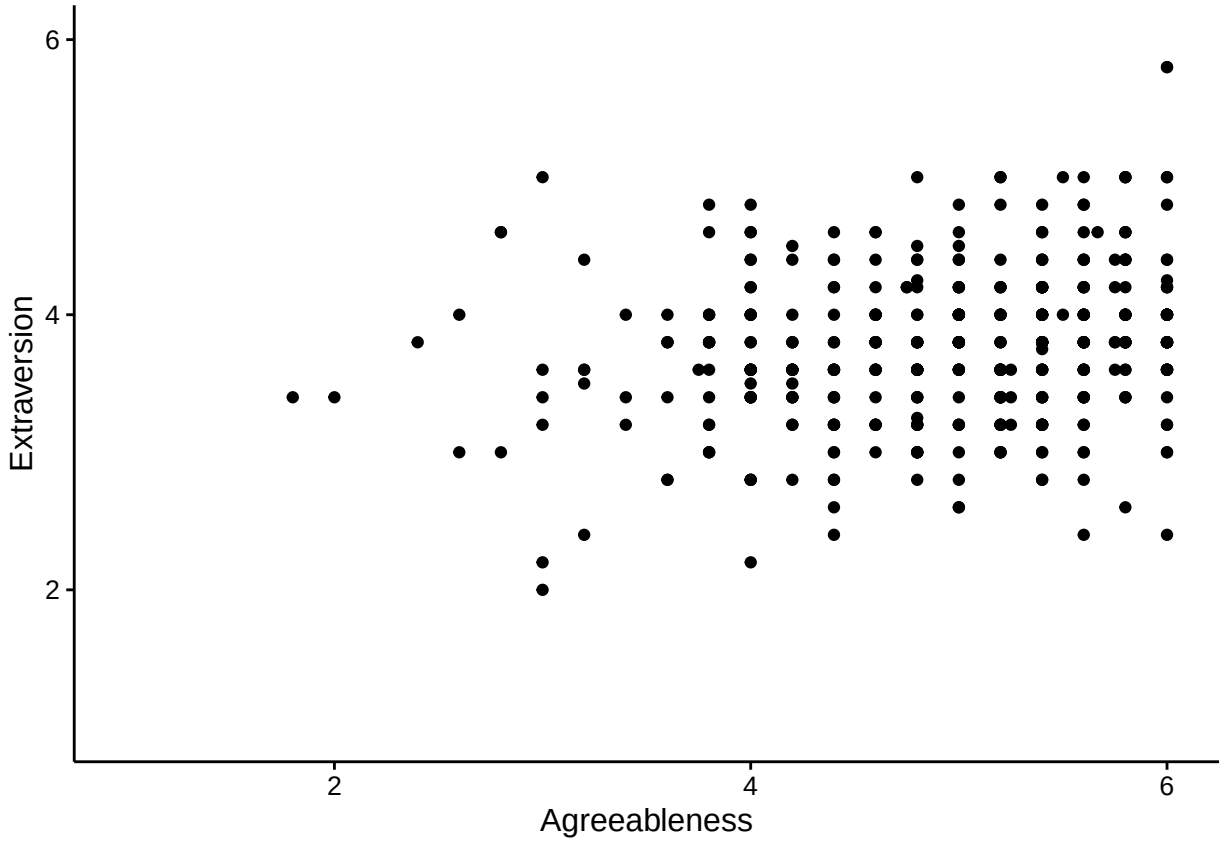
2 Correlation table for men over 40.

Below we can see the correlation for men over 40.

```
##
##
## Table 2
##
## Means, standard deviations, and correlations with confidence intervals
##
##
##   Variable         M     SD   1            2           3
##   1. age           49.15 6.38
##
##   2. education     3.46  1.20 .07
##                               [-.02, .17]
##
##   3. neuroticism   2.86  1.24 -.11*        -.04
##                               [-.20, -.02] [-.14, .05]
##
##   4. extraversion  3.75  0.55 -.06         -.04        -.03
##                               [-.15, .04]  [-.14, .05] [-.12, .07]
##
##   5. agreeableness 4.92  0.80 .00          -.00        -.21**
##                               [-.09, .10]  [-.09, .09] [-.30, -.12]
##
##   4
##
##
##
##
##
##
##
##
##
##
##
##   .21**
##   [.12, .30]
##
##
## Note. * indicates p < .05; ** indicates p < .01.
## M and SD are used to represent mean and standard deviation, respectively.
## Values in square brackets indicate the 95% confidence interval.
## The confidence interval is a plausible range of population correlations
## that could have caused the sample correlation (Cumming, 2014).
##
```

2.1 Distribution between agreeableness and extraversion

Below we can see a scatterplot between agreeableness and extraversion for men over 40.



3 Correlation and Confidence Interval

The correlation between agreeableness and extraversion in men over 40 is r=.21, CI[.12,.30). The point estimate of the correlation value between agreeableness and extraversion in men over 40 is r=.21. However, the 95% confidence interval suggests that this correlation value could range from .12 to .30 on future replications. Therefore, we can say that it is plausible there is a positive, weak correlation between extraversion and agreeableness in men over 40.