Effect of Pre-Meeting Small Talk on Perceived Social Cohesion

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Contents

Variables

```
str(data)
```

```
## tibble [160 x 12] (S3: tbl_df/tbl/data.frame)
##  $ c_1          : num [1:160] 1 7 7 5 5 6 7 5 6 5 ...
##  $ c_2          : num [1:160] 1 7 7 6 5 4 7 4 6 5 ...
##  $ c_3          : num [1:160] 1 7 7 5 4 6 7 6 6 5 ...
##  $ c_4          : num [1:160] 1 7 7 5 3 5 4 2 5 3 ...
##  $ c_5          : num [1:160] 1 7 7 5 4 6 7 5 6 5 ...
##  $ c_6          : num [1:160] 1 7 7 5 6 5 5 5 6 5 ...
##  $ manip_ch     : num [1:160] 1 7 7 6 6 1 5 4 3 3 ...
##  $ gender       : num [1:160] 4 1 2 2 2 2 2 2 2 2 ...
##  $ age          : num [1:160] 89 36 99 38 20 24 26 18 22 28 ...
##  $ exp          : num [1:160] 2 1 1 1 1 1 1 1 1 1 ...
##  $ exp_condition: num [1:160] 0 1 1 1 1 0 0 0 0 0 ...
##  $ cohesion_mean: num [1:160] 1 7 7 5.17 4.5 ...
```

Descriptive Statistics

Global Descriptive statistics whithout group mean.

```
library(psych)
psych::describe(data)
```

```
##                  vars   n   mean     sd median trimmed  mad min max range  skew
## c_1                1 160  5.27  1.33      6    5.40 1.48   1   7     6 -0.95
## c_2                2 160  4.90  1.36      5    4.97 1.48   1   7     6 -0.47
## c_3                3 160  5.24  1.30      5    5.36 1.48   1   7     6 -0.94
## c_4                4 160  3.99  1.35      4    3.96 1.48   1   7     6  0.17
## c_5                5 160  5.09  1.44      5    5.22 1.48   0   7     7 -0.96
## c_6                6 160  4.72  1.42      5    4.80 1.48   1   7     6 -0.48
## manip_ch           7 160  3.95  1.89      4    3.94 1.48   1   7     6  0.02
## gender             8 160  2.04  0.87      2    1.91 0.00   1   5     4  2.11
## age                9 160 33.42 19.99     25   28.95 7.41  18  99    81  2.15
## exp               10 160  1.04  0.19      1    1.00 0.00   1   2     1  4.82
## exp_condition     11 160  0.53  0.50      1    0.54 0.00   0   1     1 -0.12
## cohesion_mean     12 160  4.87  1.17      5    4.93 0.99   1   7     6 -0.70
##                kurtosis   se
## c_1                0.78 0.10
## c_2                0.10 0.11
## c_3                0.90 0.10
## c_4                0.17 0.11
## c_5                0.72 0.11
## c_6               -0.15 0.11
## manip_ch          -1.19 0.15
## gender             5.35 0.07
## age                4.16 1.58
## exp               21.40 0.02
## exp_condition     -2.00 0.04
## cohesion_mean      1.08 0.09
```

Means depending on the treatment (group: 1) vs control (group: 0)

```
psych::describeBy(data, data$exp_condition)
```

```
##
##  Descriptive statistics by group
## group: 0
##                  vars  n  mean     sd median trimmed  mad min max range  skew
## c_1                1 75  5.00  1.52   5.00    5.13 1.48   1   7     6 -0.84
## c_2                2 75  4.48  1.43   4.00    4.56 1.48   1   7     6 -0.37
## c_3                3 75  5.03  1.45   5.00    5.16 1.48   1   7     6 -0.99
## c_4                4 75  3.84  1.33   4.00    3.84 1.48   1   7     6  0.02
## c_5                5 75  4.85  1.65   5.00    5.02 1.48   0   7     7 -0.87
## c_6                6 75  4.28  1.54   4.00    4.31 1.48   1   7     6 -0.20
## manip_ch           7 75  3.01  1.59   3.00    2.89 1.48   1   7     6  0.66
## gender             8 75  2.07  0.83   2.00    1.95 0.00   1   5     4  2.28
## age                9 75 34.15 20.58  26.00   29.82 8.90  18  99    81  1.97
## exp               10 75  1.05  0.23   1.00    1.00 0.00   1   2     1  3.90
## exp_condition     11 75  0.00  0.00   0.00    0.00 0.00   0   0     0   NaN
## cohesion_mean     12 75  4.58  1.27   4.67    4.66 1.24   1   7     6 -0.70
##                kurtosis   se
## c_1                0.12 0.18
## c_2               -0.10 0.16
## c_3                0.64 0.17
## c_4                0.18 0.15
## c_5                0.16 0.19
```

```
## c_6              -0.67 0.18
## manip_ch         -0.23 0.18
## gender            6.21 0.10
## age               3.23 2.38
## exp              13.36 0.03
## exp_condition      NaN 0.00
## cohesion_mean     0.85 0.15
## ------------------------------------------------------------
## group: 1
##               vars  n  mean    sd median trimmed  mad   min max range  skew
## c_1              1 85  5.51  1.08   6.00    5.58 1.48  3.00   7  4.00 -0.58
## c_2              2 85  5.27  1.18   5.00    5.29 1.48  2.00   7  5.00 -0.31
## c_3              3 85  5.42  1.13   6.00    5.51 1.48  3.00   7  4.00 -0.53
## c_4              4 85  4.12  1.37   4.00    4.09 1.48  1.00   7  6.00  0.29
## c_5              5 85  5.29  1.20   6.00    5.39 1.48  2.00   7  5.00 -0.69
## c_6              6 85  5.12  1.19   5.00    5.12 1.48  1.00   7  6.00 -0.48
## manip_ch         7 85  4.78  1.74   5.00    4.90 1.48  1.00   7  6.00 -0.60
## gender           8 85  2.01  0.91   2.00    1.86 0.00  1.00   5  4.00  1.97
## age              9 85 32.79 19.54  25.00   28.54 7.41 18.00  99 81.00  2.29
## exp             10 85  1.02  0.15   1.00    1.00 0.00  1.00   2  1.00  6.18
## exp_condition   11 85  1.00  0.00   1.00    1.00 0.00  1.00   1  0.00   NaN
## cohesion_mean   12 85  5.12  1.02   5.17    5.16 0.99  2.33   7  4.67 -0.41
##               kurtosis   se
## c_1              -0.22 0.12
## c_2              -0.31 0.13
## c_3              -0.34 0.12
## c_4              -0.02 0.15
## c_5              -0.01 0.13
## c_6               0.38 0.13
## manip_ch         -0.65 0.19
## gender            4.59 0.10
## age               4.96 2.12
## exp              36.58 0.02
## exp_condition      NaN 0.00
## cohesion_mean     0.28 0.11
```

Analysis of a variance

Without Control Variables

```
one.way <- aov(exp_condition ~ cohesion_mean, data = data)
summary(one.way)
```

```
##                Df Sum Sq Mean Sq F value  Pr(>F)
## cohesion_mean   1   2.13  2.1282   8.916 0.00328 **
## Residuals     158  37.72  0.2387
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

So far the $F(1,158) = 8.92$, $p = .003$ is significant.

With Age and Gender Controlled

```
one.way <- aov(exp_condition ~ cohesion_mean + age + gender, data = data)
summary(one.way)
```

```
##                Df Sum Sq Mean Sq F value  Pr(>F)
## cohesion_mean   1   2.13  2.1282   8.837 0.00342 **
## age             1   0.13  0.1322   0.549 0.45980
## gender          1   0.01  0.0133   0.055 0.81479
## Residuals     156  37.57  0.2408
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Neither gender nor age has a significant impact on team cohesion.

So far the $F_{(1,156)} = 8.84$, p $=$ .003 is significant.