

Study 2: Code Translation from SPSS to R

Jennifer Lin

11/9/2019

Contents

Reported Results for Study 2	2
Moral Relevance	2
Moral Judgment	2
Crombach's Alpha	2
Setup	2
Code Translation	3
Descriptive Stats – Demographics	3
Alpha Reliability – MFQ	4
Alpha Reliability – MFQ with reverse code scores	9
Alpha Reliability – Relevance	14
Alpha Reliability – Judgment	17
Alpha Reliability – Judgment Harm	20
Alpha Reliability – Harm	21
Alpha Reliability – Relevance Harm	22
Alpha Reliability – Relevance Fairness	23
Alpha Reliability – Fairness	24
Alpha Reliability – Judgment Fairness	26
Alpha Reliability – Judgment Fairness minus terror	27
Alpha Reliability – Relevance In-group	27
Alpha Reliability – In-group	29
Alpha Reliability – Judgment In-group	30
Alpha Reliability – Judgment In-group minus brother	31
Alpha Reliability – Relevance Authority	32
Alpha Reliability – Authority	33
Alpha Reliability – Judgment Authority	34
Alpha Reliability – Relevance Purity	35
Alpha Reliability – Purity	37
Alpha Reliability – Judgment Purity	38
Correlation between foundation sub scale averages	39
Correlation of Difference score and politics	40
Indiv (HandF renamed to HFAvg) and Binding (IandAandP to IAPAvg) paired t-test	40
One sample t-test of diff score (HFminusIAP_Avg)	41
Oneway Summary variables by gender	41

T-test group by gender for foundation averages	42
ANCOVA foundation averages by politics with gender	45

Reported Results for Study 2

Moral Relevance

- Ratings for individualizing foundations were higher than ratings for the binding foundations for relevance items $F(1, 1205) = 1215.62, p < .001, \eta^2 = .50$.
- This effect was moderated by politics $F(1, 1205) = 450.42, p < .001, \eta^2 = .27$.

Moral Judgment

- Ratings for individualizing foundations were higher than ratings for the binding foundations for relevance items $F(1, 1200) = 635.58, p < .001, \eta^2 = .35$.
- This effect was moderated by politics $F(1, 1200) = 649.40, p < .001, \eta^2 = .35$.

Crombach's Alpha

Moral Relevance

- Harm: .71
- Fairness: .70
- Ingroup: .71
- Authority: .64
- Purity: .76

Moral Judgment

- Harm: .50
- Fairness: .39
- Ingroup: .24
- Authority: .64
- Purity: .74

Setup

```

# Load Data
s2 <- read.csv("GrahamS2data.csv")

##### Load Packages #####

library(psych)
library(tidyverse)

## -- Attaching packages ----- tidyverse 1.2.1 --

## v ggplot2 3.2.0      v purrr  0.3.2
## v tibble  2.1.3      v dplyr  0.8.1
## v tidyr   0.8.3      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0

## -- Conflicts ----- tidyverse_conflicts() --
## x ggplot2::%+%( ) masks psych::%+%( )
## x ggplot2::alpha() masks psych::alpha()
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()

##### Check Variable Structure #####3

# Gender
str(s2$gender)

## int [1:2135] -1 -1 1 -1 -1 -1 -1 -1 1 -1 ...
s2$gender <- as.factor(s2$gender)
class(s2$gender)

## [1] "factor"

```

Code Translation

For each of the code translations, the original SPSS code is presented followed by the code in R. Results are also presented with each code chunk.

Descriptive Stats – Demographics

```

FREQUENCIES
/VARIABLES=politics gender citizen resdnce byear
/STATISTICS=MEAN
/ORDER= ANALYSIS.

```

```
describe(s2$politics) #Political ideology (-3 = Very Liberal)
```

```
##      vars      n  mean    sd median trimmed  mad min max range skew kurtosis
## X1      1 2135 -0.74 1.71      -1   -0.85 1.48  -3   3     6 0.4    -0.85
##      se
## X1 0.04
```

```
table(s2$gender) #Gender: 1 = Female, -1 = Male
```

```
##
##   -1    1
## 790 1343
```

```
table(s2$citizen) #Country of Citizenship
```

```
##
##   .   ar   au   bd   bg   br   by   ca   cl   cn   co   de   ec   fi   gh
##   5    1    3    1    1    1    1   12    1    2    2    9    2    2    1
##  gy   hr   il   in   jm   jp   kh   kr   lr   mx   my   pa   ph   pk   pr
##   1    1    2    8    1    1    1    1    1    2    1    1    1    1    1
##  ro   ru   se   tr   tw   ua   ug   uk   um   us
##   2    1    1    1    2    2    1   11    5 2041
```

```
table(s2$resdnce) #Country of Residence
```

```
##
##      af   au   bd   bw   ca   cn   es   et   fi   hk   hr   ie   in   jp
##  18    1    1    5    1    5    1    1    1    1    1    1    1    2
##  kr   mx   ph   pl   pr   th   tw   ug   uk   us   uy   vg
##   1    1    1    2    1    1    1    1    4 2079    1    1
```

```
describe(s2$byear) #Birth Year
```

```
##      vars      n  mean    sd median trimmed  mad min max range skew
## X1      1 2135 1974.2 12.99   1978 1975.81 11.86 1928 2002    74 -0.94
##      kurtosis  se
## X1          0 0.28
```

Alpha Reliability – MFQ

RELIABILITY

```
/VARIABLES=Harmed Astrology Unnat Friend Duties Rights Group Disgust Loyalty
Violence Desires Profiting Attract Decency Unfair Interests Weak Author
Uplifting Rank Emotionally Traditions Treated Betray Respect Slap Heritage
Chastity Romantic Terror Brother Revolting Wellbeing Compassion Line Kill
Grouploy Govharm Sexroles Soldier Sin Justice Wrongdisgust Fairly Kidrespect
```

```

/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

MFQ <- s2 %>% select(c("Harmed", "Astrology", "Unnat", "Friend", "Duties",
  "Rights", "Group", "Disgust", "Loyalty", "Violence", "Desires", "Profiting",
  "Attract", "Decency", "Unfair", "Interests", "Weak", "Author", "Uplifting",
  "Rank", "Emotionally", "Traditions", "Treated", "Betray", "Respect",
  "Slap", "Heritage", "Chastity", "Romantic", "Terror", "Brother", "Revolting",
  "Wellbeing", "Compassion", "Line", "Kill", "Grouploy", "Govharm", "Sexroles",
  "Soldier", "Sin", "Justice", "Wrongdisgust", "Fairly", "Kidrespect"))
psych::alpha(MFQ, na.rm = TRUE, check.keys = TRUE)

## Warning in psych::alpha(MFQ, na.rm = TRUE, check.keys = TRUE): Some items were negative
## This is indicated by a negative sign for the variable name.

##
## Reliability analysis
## Call: psych::alpha(x = MFQ, na.rm = TRUE, check.keys = TRUE)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.85     0.85     0.9     0.12 5.9 0.0045  3.7 0.59     0.099
##
##   lower alpha upper      95% confidence boundaries
## 0.84 0.85 0.86
##
## Reliability if an item is dropped:
##
##   raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## Harmed      0.85     0.85     0.89     0.12 5.8  0.0046 0.023
## Astrology    0.85     0.86     0.90     0.12 5.9  0.0045 0.023
## Unnat        0.84     0.85     0.89     0.11 5.6  0.0048 0.023
## Friend       0.85     0.85     0.89     0.12 5.7  0.0046 0.023
## Duties       0.85     0.85     0.89     0.11 5.6  0.0047 0.023
## Rights       0.85     0.85     0.89     0.12 5.8  0.0045 0.022
## Group        0.85     0.85     0.89     0.11 5.6  0.0047 0.023
## Disgust      0.84     0.85     0.89     0.11 5.5  0.0048 0.022
## Loyalty      0.84     0.85     0.89     0.11 5.5  0.0048 0.023
## Violence     0.85     0.85     0.89     0.11 5.7  0.0046 0.023
## Desires      0.85     0.85     0.89     0.11 5.6  0.0047 0.023
## Profiting    0.85     0.85     0.89     0.12 5.8  0.0046 0.023
## Attract      0.85     0.85     0.89     0.12 5.9  0.0045 0.023
## Decency      0.84     0.85     0.89     0.11 5.5  0.0048 0.022
## Unfair       0.85     0.85     0.89     0.11 5.7  0.0046 0.023
## Interests    0.85     0.85     0.89     0.11 5.6  0.0046 0.023
## Weak         0.85     0.85     0.89     0.11 5.7  0.0046 0.023

```

## Author	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Uplifting	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Rank	0.85	0.85	0.89	0.12	5.8	0.0045	0.024
## Emotionally	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## Traditions	0.84	0.85	0.89	0.11	5.5	0.0047	0.023
## Treated	0.85	0.85	0.89	0.12	5.8	0.0045	0.022
## Betray	0.84	0.85	0.89	0.11	5.5	0.0048	0.023
## Respect	0.84	0.85	0.89	0.11	5.5	0.0048	0.022
## Slap-	0.86	0.86	0.90	0.12	6.1	0.0044	0.022
## Heritage	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Chastity	0.85	0.85	0.89	0.11	5.7	0.0047	0.023
## Romantic	0.85	0.86	0.90	0.12	5.9	0.0045	0.023
## Terror	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## Brother	0.85	0.86	0.90	0.12	6.0	0.0044	0.023
## Revolting	0.84	0.85	0.89	0.11	5.6	0.0047	0.023
## Wellbeing	0.85	0.86	0.90	0.12	5.9	0.0045	0.022
## Compassion	0.85	0.85	0.89	0.12	5.8	0.0045	0.023
## Line	0.85	0.86	0.90	0.12	6.0	0.0044	0.023
## Kill	0.85	0.86	0.90	0.12	5.9	0.0044	0.023
## Grouploy	0.85	0.85	0.89	0.12	5.8	0.0046	0.023
## Govharm	0.85	0.85	0.89	0.11	5.7	0.0046	0.023
## Sexroles	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## Soldier	0.85	0.85	0.89	0.12	5.8	0.0046	0.023
## Sin	0.85	0.85	0.89	0.11	5.7	0.0047	0.023
## Justice	0.85	0.85	0.89	0.12	5.9	0.0045	0.023
## Wrongdisgust	0.84	0.85	0.89	0.11	5.6	0.0047	0.022
## Fairly	0.85	0.85	0.89	0.12	5.8	0.0045	0.023
## Kidrespect	0.84	0.85	0.89	0.11	5.6	0.0047	0.023
##	med.r						
## Harmed	0.101						
## Astrology	0.109						
## Unnat	0.097						
## Friend	0.099						
## Duties	0.097						
## Rights	0.103						
## Group	0.096						
## Disgust	0.096						
## Loyalty	0.097						
## Violence	0.099						
## Desires	0.097						
## Profiting	0.099						
## Attract	0.105						
## Decency	0.097						
## Unfair	0.099						
## Interests	0.097						

```

## Weak      0.099
## Author    0.098
## Uplifting 0.096
## Rank      0.104
## Emotionally 0.099
## Traditions 0.097
## Treated   0.101
## Betray    0.095
## Respect   0.097
## Slap-     0.112
## Heritage  0.099
## Chastity  0.100
## Romantic  0.106
## Terror    0.099
## Brother   0.110
## Revolting 0.098
## Wellbeing 0.104
## Compassion 0.104
## Line      0.111
## Kill      0.105
## Grouploy  0.103
## Govharm   0.097
## Sexroles  0.099
## Soldier   0.101
## Sin       0.099
## Justice   0.105
## Wrongdisgust 0.099
## Fairly    0.105
## Kidrespect 0.097

```

```
##
```

```
## Item statistics
```

##	n	raw.r	std.r	r.cor	r.drop	mean	sd
## Harmed	1209	0.366	0.3357	0.314	0.250	5.2	1.11
## Astrology	1206	0.135	0.1401	0.091	0.084	1.3	0.56
## Unnat	1206	0.536	0.5436	0.540	0.510	3.8	1.47
## Friend	1204	0.401	0.3674	0.348	0.309	3.5	1.60
## Duties	1202	0.454	0.4674	0.449	0.419	4.2	1.27
## Rights	1204	0.321	0.2904	0.274	0.189	5.1	1.15
## Group	1203	0.479	0.4611	0.448	0.404	3.6	1.47
## Disgust	1201	0.594	0.5947	0.599	0.571	3.0	1.37
## Loyalty	1202	0.574	0.5684	0.566	0.524	3.7	1.40
## Violence	1202	0.400	0.3865	0.372	0.307	5.1	1.14
## Desires	1202	0.506	0.4989	0.484	0.448	3.7	1.37
## Profiting	1201	0.381	0.3401	0.316	0.258	3.7	1.42
## Attract	1202	0.264	0.2311	0.200	0.177	2.1	1.34

## Decency	1201	0.563	0.5932	0.597	0.572	3.4	1.54
## Unfair	1201	0.418	0.4014	0.385	0.319	4.8	1.15
## Interests	1200	0.488	0.4544	0.438	0.382	3.9	1.31
## Weak	1198	0.453	0.4305	0.419	0.343	4.5	1.27
## Author	1196	0.525	0.5045	0.495	0.431	4.4	1.25
## Uplifting	1199	0.527	0.5128	0.501	0.452	3.9	1.40
## Rank	1196	0.303	0.2713	0.233	0.203	2.7	1.43
## Emotionally	1198	0.380	0.3272	0.309	0.233	4.4	1.31
## Traditions	1200	0.539	0.5517	0.549	0.517	3.0	1.33
## Treated	1200	0.357	0.3149	0.301	0.216	4.5	1.24
## Betray	1199	0.601	0.5931	0.594	0.542	3.6	1.34
## Respect	1199	0.548	0.5925	0.597	0.569	3.7	1.39
## Slap-	1203	0.061	-0.0081	-0.062	-0.054	2.5	1.47
## Heritage	1202	0.520	0.4463	0.432	0.420	3.7	1.50
## Chastity	1195	0.507	0.4062	0.389	0.381	3.9	1.65
## Romantic	1201	0.279	0.1544	0.110	0.114	3.3	1.72
## Terror	1200	0.443	0.3005	0.279	0.283	3.1	1.69
## Brother	1198	0.187	0.1267	0.082	0.064	3.9	1.71
## Revolting	1198	0.564	0.4913	0.482	0.472	3.3	1.70
## Wellbeing	1196	0.331	0.1868	0.154	0.163	2.9	1.52
## Compassion	1197	0.157	0.2556	0.226	0.173	4.7	1.19
## Line	1195	0.161	0.1161	0.069	0.052	4.2	1.52
## Kill	1196	0.137	0.1670	0.131	0.077	3.7	1.81
## Grouploy	1197	0.305	0.2712	0.234	0.223	2.8	1.36
## Govharm	1197	0.346	0.3780	0.353	0.314	4.5	1.35
## Sexroles	1196	0.412	0.2943	0.269	0.273	3.1	1.66
## Soldier	1196	0.384	0.2700	0.241	0.240	3.6	1.61
## Sin	1196	0.535	0.4357	0.424	0.418	2.3	1.53
## Justice	1197	0.159	0.2359	0.209	0.148	5.0	1.15
## Wrongdisgust	1196	0.586	0.4714	0.470	0.462	3.1	1.66
## Fairly	1193	0.188	0.2466	0.223	0.157	4.8	1.28
## Kidrespect	1196	0.556	0.5031	0.498	0.484	4.8	1.26

##

Non missing response frequency for each item

##	1	2	3	4	5	6	miss
## Harmed	0.01	0.01	0.06	0.13	0.25	0.54	0.43
## Astrology	0.80	0.14	0.06	0.00	0.00	0.00	0.44
## Unnat	0.07	0.15	0.20	0.24	0.20	0.15	0.44
## Friend	0.15	0.16	0.19	0.20	0.18	0.13	0.44
## Duties	0.03	0.07	0.17	0.30	0.27	0.16	0.44
## Rights	0.01	0.02	0.08	0.14	0.26	0.49	0.44
## Group	0.10	0.15	0.22	0.24	0.19	0.10	0.44
## Disgust	0.13	0.27	0.26	0.18	0.11	0.05	0.44
## Loyalty	0.06	0.15	0.22	0.27	0.18	0.12	0.44
## Violence	0.01	0.02	0.07	0.13	0.28	0.48	0.44

## Desires	0.06	0.15	0.25	0.26	0.18	0.10	0.44
## Profiting	0.08	0.14	0.22	0.27	0.19	0.11	0.44
## Attract	0.45	0.24	0.15	0.09	0.04	0.03	0.44
## Decency	0.12	0.20	0.23	0.19	0.15	0.12	0.44
## Unfair	0.01	0.03	0.08	0.23	0.32	0.33	0.44
## Interests	0.04	0.10	0.21	0.30	0.21	0.13	0.44
## Weak	0.03	0.04	0.14	0.25	0.28	0.26	0.44
## Author	0.02	0.05	0.16	0.27	0.28	0.22	0.44
## Uplifting	0.05	0.12	0.20	0.26	0.21	0.16	0.44
## Rank	0.27	0.24	0.21	0.16	0.08	0.04	0.44
## Emotionally	0.02	0.07	0.15	0.26	0.26	0.24	0.44
## Traditions	0.11	0.28	0.26	0.20	0.09	0.05	0.44
## Treated	0.02	0.05	0.13	0.26	0.28	0.27	0.44
## Betray	0.05	0.15	0.28	0.25	0.15	0.11	0.44
## Respect	0.06	0.16	0.23	0.27	0.17	0.11	0.44
## Slap	0.05	0.09	0.10	0.18	0.28	0.30	0.44
## Heritage	0.09	0.17	0.14	0.25	0.24	0.11	0.44
## Chastity	0.11	0.15	0.11	0.22	0.20	0.21	0.44
## Romantic	0.21	0.17	0.13	0.18	0.17	0.13	0.44
## Terror	0.27	0.15	0.12	0.23	0.13	0.10	0.44
## Brother	0.13	0.10	0.15	0.18	0.19	0.24	0.44
## Revolting	0.20	0.19	0.14	0.17	0.17	0.13	0.44
## Wellbeing	0.25	0.23	0.17	0.20	0.10	0.06	0.44
## Compassion	0.01	0.05	0.09	0.21	0.35	0.28	0.44
## Line	0.07	0.11	0.10	0.21	0.28	0.24	0.44
## Kill	0.16	0.16	0.15	0.09	0.21	0.23	0.44
## Grouploy	0.21	0.25	0.23	0.18	0.10	0.02	0.44
## Govharm	0.03	0.07	0.10	0.21	0.31	0.28	0.44
## Sexroles	0.24	0.18	0.11	0.24	0.13	0.09	0.44
## Soldier	0.14	0.16	0.15	0.20	0.23	0.13	0.44
## Sin	0.46	0.18	0.10	0.14	0.07	0.04	0.44
## Justice	0.02	0.03	0.04	0.14	0.33	0.44	0.44
## Wrongdisgust	0.24	0.20	0.13	0.19	0.17	0.08	0.44
## Fairly	0.02	0.05	0.08	0.17	0.29	0.39	0.44
## Kidrespect	0.03	0.05	0.05	0.21	0.32	0.33	0.44

Alpha Reliability – MFQ with reverse code scores

RELIABILITY

/VARIABLES=Harmed Astrology Unnat Friend Duties Rights Group Disgust Loyalty
 Violence Desires Profiting Attract Decency Unfair Interests Weak Author
 Uplifting Rank Emotionally Traditions Treated Betray Respect Slap Heritage
 Chastity Romantic Revolting Wellbeing Compassion Line Kill Grouploy Govharm
 Sexroles Soldier Sin Justice Wrongdisgust Fairly Kidrespect TerrorRev

```

    BrotherRev
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

MFQrev <- s2 %>% select(c("Harmed", "Astrology", "Unnat", "Friend", "Duties",
    "Rights", "Group", "Disgust", "Loyalty", "Violence", "Desires", "Profiting",
    "Attract", "Decency", "Unfair", "Interests", "Weak", "Author", "Uplifting",
    "Rank", "Emotionally", "Traditions", "Treated", "Betray", "Respect",
    "Slap", "Heritage", "Chastity", "Romantic", "Revolting", "Wellbeing",
    "Compassion", "Line", "Kill", "Grouploy", "Govharm", "Sexroles", "Soldier",
    "Sin", "Justice", "Wrongdisgust", "Fairly", "Kidrespect", "TerrorRev",
    "BrotherRev"))
psych::alpha(MFQrev, na.rm = TRUE, check.keys = TRUE)

## Warning in psych::alpha(MFQrev, na.rm = TRUE, check.keys = TRUE): Some items were neg
## This is indicated by a negative sign for the variable name.

##
## Reliability analysis
## Call: psych::alpha(x = MFQrev, na.rm = TRUE, check.keys = TRUE)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##      0.85      0.85      0.9      0.12 5.9 0.0045  3.7 0.59    0.099
##
##   lower alpha upper      95% confidence boundaries
## 0.84 0.85 0.86
##
## Reliability if an item is dropped:
##
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## Harmed      0.85      0.85      0.89      0.12 5.8  0.0046 0.023
## Astrology    0.85      0.86      0.90      0.12 5.9  0.0045 0.023
## Unnat        0.84      0.85      0.89      0.11 5.6  0.0048 0.023
## Friend       0.85      0.85      0.89      0.12 5.7  0.0046 0.023
## Duties       0.85      0.85      0.89      0.11 5.6  0.0047 0.023
## Rights       0.85      0.85      0.89      0.12 5.8  0.0045 0.022
## Group        0.85      0.85      0.89      0.11 5.6  0.0047 0.023
## Disgust      0.84      0.85      0.89      0.11 5.5  0.0048 0.022
## Loyalty      0.84      0.85      0.89      0.11 5.5  0.0048 0.023
## Violence     0.85      0.85      0.89      0.11 5.7  0.0046 0.023
## Desires      0.85      0.85      0.89      0.11 5.6  0.0047 0.023
## Profiting    0.85      0.85      0.89      0.12 5.8  0.0046 0.023
## Attract      0.85      0.85      0.89      0.12 5.9  0.0045 0.023
## Decency      0.84      0.85      0.89      0.11 5.5  0.0048 0.022
## Unfair       0.85      0.85      0.89      0.11 5.7  0.0046 0.023

```

## Interests	0.85	0.85	0.89	0.11	5.6	0.0046	0.023
## Weak	0.85	0.85	0.89	0.11	5.7	0.0046	0.023
## Author	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Uplifting	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Rank	0.85	0.85	0.89	0.12	5.8	0.0045	0.024
## Emotionally	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## Traditions	0.84	0.85	0.89	0.11	5.5	0.0047	0.023
## Treated	0.85	0.85	0.89	0.12	5.8	0.0045	0.022
## Betray	0.84	0.85	0.89	0.11	5.5	0.0048	0.023
## Respect	0.84	0.85	0.89	0.11	5.5	0.0048	0.022
## Slap-	0.86	0.86	0.90	0.12	6.1	0.0044	0.022
## Heritage	0.85	0.85	0.89	0.11	5.6	0.0047	0.023
## Chastity	0.85	0.85	0.89	0.11	5.7	0.0047	0.023
## Romantic	0.85	0.86	0.90	0.12	5.9	0.0045	0.023
## Revolting	0.84	0.85	0.89	0.11	5.6	0.0047	0.023
## Wellbeing	0.85	0.86	0.90	0.12	5.9	0.0045	0.022
## Compassion	0.85	0.85	0.89	0.12	5.8	0.0045	0.023
## Line	0.85	0.86	0.90	0.12	6.0	0.0044	0.023
## Kill	0.85	0.86	0.90	0.12	5.9	0.0044	0.023
## Grouploy	0.85	0.85	0.89	0.12	5.8	0.0046	0.023
## Govharm	0.85	0.85	0.89	0.11	5.7	0.0046	0.023
## Sexroles	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## Soldier	0.85	0.85	0.89	0.12	5.8	0.0046	0.023
## Sin	0.85	0.85	0.89	0.11	5.7	0.0047	0.023
## Justice	0.85	0.85	0.89	0.12	5.9	0.0045	0.023
## Wrongdisgust	0.84	0.85	0.89	0.11	5.6	0.0047	0.022
## Fairly	0.85	0.85	0.89	0.12	5.8	0.0045	0.023
## Kidrespect	0.84	0.85	0.89	0.11	5.6	0.0047	0.023
## TerrorRev-	0.85	0.85	0.89	0.12	5.8	0.0046	0.022
## BrotherRev-	0.85	0.86	0.90	0.12	6.0	0.0044	0.023
##	med.r						
## Harmed	0.101						
## Astrology	0.109						
## Unnat	0.097						
## Friend	0.099						
## Duties	0.097						
## Rights	0.103						
## Group	0.096						
## Disgust	0.096						
## Loyalty	0.097						
## Violence	0.099						
## Desires	0.097						
## Profiting	0.099						
## Attract	0.105						
## Decency	0.097						

```

## Unfair      0.099
## Interests   0.097
## Weak        0.099
## Author      0.098
## Uplifting   0.096
## Rank        0.104
## Emotionally 0.099
## Traditions  0.097
## Treated     0.101
## Betray      0.095
## Respect     0.097
## Slap-       0.112
## Heritage    0.099
## Chastity    0.100
## Romantic    0.106
## Revolting   0.098
## Wellbeing   0.104
## Compassion  0.104
## Line        0.111
## Kill        0.105
## Grouploy    0.103
## Govharm     0.097
## Sexroles    0.099
## Soldier     0.101
## Sin         0.099
## Justice     0.105
## Wrongdisgust 0.099
## Fairly      0.105
## Kidrespect  0.097
## TerrorRev-  0.099
## BrotherRev- 0.110

```

```
##
```

```
## Item statistics
```

##	n	raw.r	std.r	r.cor	r.drop	mean	sd
## Harmed	1209	0.366	0.3357	0.314	0.250	5.2	1.11
## Astrology	1206	0.135	0.1401	0.091	0.084	1.3	0.56
## Unnat	1206	0.536	0.5436	0.540	0.510	3.8	1.47
## Friend	1204	0.401	0.3674	0.348	0.309	3.5	1.60
## Duties	1202	0.454	0.4674	0.449	0.419	4.2	1.27
## Rights	1204	0.321	0.2904	0.274	0.189	5.1	1.15
## Group	1203	0.479	0.4611	0.448	0.404	3.6	1.47
## Disgust	1201	0.594	0.5947	0.599	0.571	3.0	1.37
## Loyalty	1202	0.574	0.5684	0.566	0.524	3.7	1.40
## Violence	1202	0.400	0.3865	0.372	0.307	5.1	1.14
## Desires	1202	0.506	0.4989	0.484	0.448	3.7	1.37

## Profiting	1201	0.381	0.3401	0.316	0.258	3.7	1.42
## Attract	1202	0.264	0.2311	0.200	0.177	2.1	1.34
## Decency	1201	0.563	0.5932	0.597	0.572	3.4	1.54
## Unfair	1201	0.418	0.4014	0.385	0.319	4.8	1.15
## Interests	1200	0.488	0.4544	0.438	0.382	3.9	1.31
## Weak	1198	0.453	0.4305	0.419	0.343	4.5	1.27
## Author	1196	0.525	0.5045	0.495	0.431	4.4	1.25
## Uplifting	1199	0.527	0.5128	0.501	0.452	3.9	1.40
## Rank	1196	0.303	0.2713	0.233	0.203	2.7	1.43
## Emotionally	1198	0.380	0.3272	0.309	0.233	4.4	1.31
## Traditions	1200	0.539	0.5517	0.549	0.517	3.0	1.33
## Treated	1200	0.357	0.3149	0.301	0.216	4.5	1.24
## Betray	1199	0.601	0.5931	0.594	0.542	3.6	1.34
## Respect	1199	0.548	0.5925	0.597	0.569	3.7	1.39
## Slap-	1203	0.061	-0.0081	-0.062	-0.054	2.5	1.47
## Heritage	1202	0.520	0.4463	0.432	0.420	3.7	1.50
## Chastity	1195	0.507	0.4062	0.389	0.381	3.9	1.65
## Romantic	1201	0.279	0.1544	0.110	0.114	3.3	1.72
## Revolting	1198	0.564	0.4913	0.482	0.472	3.3	1.70
## Wellbeing	1196	0.331	0.1868	0.154	0.163	2.9	1.52
## Compassion	1197	0.157	0.2556	0.226	0.173	4.7	1.19
## Line	1195	0.161	0.1161	0.069	0.052	4.2	1.52
## Kill	1196	0.137	0.1670	0.131	0.077	3.7	1.81
## Grouploy	1197	0.305	0.2712	0.234	0.223	2.8	1.36
## Govharm	1197	0.346	0.3780	0.353	0.314	4.5	1.35
## Sexroles	1196	0.412	0.2943	0.269	0.273	3.1	1.66
## Soldier	1196	0.384	0.2700	0.241	0.240	3.6	1.61
## Sin	1196	0.535	0.4357	0.424	0.418	2.3	1.53
## Justice	1197	0.159	0.2359	0.209	0.148	5.0	1.15
## Wrongdisgust	1196	0.586	0.4714	0.470	0.462	3.1	1.66
## Fairly	1193	0.188	0.2466	0.223	0.157	4.8	1.28
## Kidrespect	1196	0.556	0.5031	0.498	0.484	4.8	1.26
## TerrorRev-	1200	0.443	0.3005	0.279	0.283	3.1	1.69
## BrotherRev-	1198	0.187	0.1267	0.082	0.064	3.9	1.71
##							
## Non missing response frequency for each item							
##		1	2	3	4	5	6 miss
## Harmed		0.01	0.01	0.06	0.13	0.25	0.54 0.43
## Astrology		0.80	0.14	0.06	0.00	0.00	0.00 0.44
## Unnat		0.07	0.15	0.20	0.24	0.20	0.15 0.44
## Friend		0.15	0.16	0.19	0.20	0.18	0.13 0.44
## Duties		0.03	0.07	0.17	0.30	0.27	0.16 0.44
## Rights		0.01	0.02	0.08	0.14	0.26	0.49 0.44
## Group		0.10	0.15	0.22	0.24	0.19	0.10 0.44
## Disgust		0.13	0.27	0.26	0.18	0.11	0.05 0.44

## Loyalty	0.06	0.15	0.22	0.27	0.18	0.12	0.44
## Violence	0.01	0.02	0.07	0.13	0.28	0.48	0.44
## Desires	0.06	0.15	0.25	0.26	0.18	0.10	0.44
## Profiting	0.08	0.14	0.22	0.27	0.19	0.11	0.44
## Attract	0.45	0.24	0.15	0.09	0.04	0.03	0.44
## Decency	0.12	0.20	0.23	0.19	0.15	0.12	0.44
## Unfair	0.01	0.03	0.08	0.23	0.32	0.33	0.44
## Interests	0.04	0.10	0.21	0.30	0.21	0.13	0.44
## Weak	0.03	0.04	0.14	0.25	0.28	0.26	0.44
## Author	0.02	0.05	0.16	0.27	0.28	0.22	0.44
## Uplifting	0.05	0.12	0.20	0.26	0.21	0.16	0.44
## Rank	0.27	0.24	0.21	0.16	0.08	0.04	0.44
## Emotionally	0.02	0.07	0.15	0.26	0.26	0.24	0.44
## Traditions	0.11	0.28	0.26	0.20	0.09	0.05	0.44
## Treated	0.02	0.05	0.13	0.26	0.28	0.27	0.44
## Betray	0.05	0.15	0.28	0.25	0.15	0.11	0.44
## Respect	0.06	0.16	0.23	0.27	0.17	0.11	0.44
## Slap	0.05	0.09	0.10	0.18	0.28	0.30	0.44
## Heritage	0.09	0.17	0.14	0.25	0.24	0.11	0.44
## Chastity	0.11	0.15	0.11	0.22	0.20	0.21	0.44
## Romantic	0.21	0.17	0.13	0.18	0.17	0.13	0.44
## Revolting	0.20	0.19	0.14	0.17	0.17	0.13	0.44
## Wellbeing	0.25	0.23	0.17	0.20	0.10	0.06	0.44
## Compassion	0.01	0.05	0.09	0.21	0.35	0.28	0.44
## Line	0.07	0.11	0.10	0.21	0.28	0.24	0.44
## Kill	0.16	0.16	0.15	0.09	0.21	0.23	0.44
## Grouploy	0.21	0.25	0.23	0.18	0.10	0.02	0.44
## Govharm	0.03	0.07	0.10	0.21	0.31	0.28	0.44
## Sexroles	0.24	0.18	0.11	0.24	0.13	0.09	0.44
## Soldier	0.14	0.16	0.15	0.20	0.23	0.13	0.44
## Sin	0.46	0.18	0.10	0.14	0.07	0.04	0.44
## Justice	0.02	0.03	0.04	0.14	0.33	0.44	0.44
## Wrongdisgust	0.24	0.20	0.13	0.19	0.17	0.08	0.44
## Fairly	0.02	0.05	0.08	0.17	0.29	0.39	0.44
## Kidrespect	0.03	0.05	0.05	0.21	0.32	0.33	0.44
## TerrorRev	0.10	0.13	0.23	0.12	0.15	0.27	0.44
## BrotherRev	0.24	0.19	0.18	0.15	0.10	0.13	0.44

Alpha Reliability – Relevance

RELIABILITY

/VARIABLES=Harmed Astrology Unnat Friend Duties Rights Group Disgust Loyalty
 Violence Desires Profiting Attract Decency Unfair Interests Weak Author
 Uplifting Rank Emotionally Traditions Treated Betray Respect Slap

```

Heritage Chastity Romantic Revolting Wellbeing Compassion Line Kill
Grouploy Govharm Sexroles Soldier Sin Justice Wrongdisgust Fairly
Kidrespect TerrorRev BrotherRev
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

Relevance <- s2 %>% select(c("Harmed", "Astrology", "Unnat", "Friend",
  "Duties", "Rights", "Group", "Disgust", "Loyalty", "Violence", "Desires",
  "Profiting", "Attract", "Decency", "Unfair", "Interests", "Weak", "Author",
  "Uplifting", "Rank", "Emotionally", "Traditions", "Treated", "Betray",
  "Respect"))
psych::alpha(Relevance)

##
## Reliability analysis
## Call: psych::alpha(x = Relevance)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.86     0.86     0.88     0.19   6 0.0044   3.8 0.64     0.17
##
##   lower alpha upper      95% confidence boundaries
## 0.85 0.86 0.87
##
## Reliability if an item is dropped:
##
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## Harmed      0.86     0.85     0.88     0.20 5.8   0.0045 0.017 0.18
## Astrology   0.86     0.86     0.89     0.21 6.2   0.0044 0.016 0.19
## Unnat       0.85     0.85     0.88     0.19 5.7   0.0046 0.017 0.17
## Friend      0.86     0.85     0.88     0.20 5.9   0.0044 0.018 0.18
## Duties      0.85     0.85     0.88     0.19 5.8   0.0045 0.018 0.17
## Rights      0.86     0.85     0.88     0.20 5.8   0.0045 0.016 0.18
## Group       0.85     0.85     0.88     0.19 5.7   0.0046 0.018 0.17
## Disgust     0.85     0.85     0.88     0.19 5.6   0.0046 0.017 0.17
## Loyalty     0.85     0.85     0.88     0.19 5.6   0.0047 0.017 0.17
## Violence    0.85     0.85     0.88     0.19 5.8   0.0045 0.017 0.17
## Desires     0.85     0.85     0.88     0.19 5.7   0.0046 0.018 0.16
## Profiting   0.86     0.85     0.88     0.19 5.8   0.0045 0.018 0.17
## Attract     0.86     0.86     0.88     0.20 6.1   0.0043 0.016 0.18
## Decency     0.85     0.85     0.88     0.19 5.7   0.0046 0.017 0.17
## Unfair      0.85     0.85     0.88     0.19 5.7   0.0045 0.017 0.17
## Interests   0.85     0.85     0.88     0.19 5.7   0.0046 0.018 0.16
## Weak        0.85     0.85     0.88     0.19 5.7   0.0046 0.017 0.17
## Author      0.85     0.85     0.88     0.19 5.6   0.0046 0.017 0.16

```

```

## Uplifting      0.85      0.85      0.88      0.19 5.6      0.0046 0.018 0.16
## Rank           0.86      0.86      0.88      0.20 6.0      0.0044 0.018 0.18
## Emotionally    0.85      0.85      0.88      0.19 5.8      0.0045 0.017 0.17
## Traditions     0.85      0.85      0.88      0.19 5.7      0.0046 0.017 0.17
## Treated        0.86      0.85      0.88      0.19 5.8      0.0045 0.016 0.18
## Betray         0.85      0.85      0.88      0.19 5.5      0.0047 0.017 0.16
## Respect        0.85      0.85      0.88      0.19 5.7      0.0046 0.017 0.17
##
## Item statistics
##              n raw.r std.r r.cor r.drop mean  sd
## Harmed      1209  0.42  0.44  0.40  0.35  5.2 1.11
## Astrology   1206  0.16  0.19  0.12  0.12  1.3 0.56
## Unnat       1206  0.51  0.50  0.48  0.44  3.8 1.47
## Friend      1204  0.43  0.41  0.37  0.34  3.5 1.60
## Duties      1202  0.46  0.46  0.42  0.39  4.2 1.27
## Rights      1204  0.41  0.43  0.41  0.34  5.1 1.15
## Group       1203  0.52  0.51  0.48  0.44  3.6 1.47
## Disgust     1201  0.57  0.55  0.54  0.51  3.0 1.37
## Loyalty     1202  0.59  0.58  0.56  0.53  3.7 1.40
## Violence    1202  0.45  0.47  0.45  0.39  5.1 1.14
## Desires     1202  0.53  0.52  0.49  0.46  3.7 1.37
## Profiting   1201  0.44  0.44  0.41  0.36  3.7 1.42
## Attract     1202  0.30  0.28  0.23  0.21  2.1 1.34
## Decency     1201  0.52  0.50  0.49  0.45  3.4 1.54
## Unfair      1201  0.47  0.49  0.46  0.41  4.8 1.15
## Interests   1200  0.54  0.54  0.52  0.47  3.9 1.31
## Weak        1198  0.52  0.54  0.52  0.46  4.5 1.27
## Author      1196  0.57  0.58  0.56  0.51  4.4 1.25
## Uplifting   1199  0.56  0.56  0.53  0.50  3.9 1.40
## Rank        1196  0.34  0.34  0.28  0.26  2.7 1.43
## Emotionally 1198  0.46  0.47  0.44  0.39  4.4 1.31
## Traditions  1200  0.53  0.52  0.49  0.46  3.0 1.33
## Treated     1200  0.44  0.46  0.43  0.37  4.5 1.24
## Betray      1199  0.63  0.62  0.61  0.58  3.6 1.34
## Respect     1199  0.51  0.49  0.47  0.44  3.7 1.39
##
## Non missing response frequency for each item
##              1      2      3      4      5      6 miss
## Harmed      0.01 0.01 0.06 0.13 0.25 0.54 0.43
## Astrology   0.80 0.14 0.06 0.00 0.00 0.00 0.44
## Unnat       0.07 0.15 0.20 0.24 0.20 0.15 0.44
## Friend      0.15 0.16 0.19 0.20 0.18 0.13 0.44
## Duties      0.03 0.07 0.17 0.30 0.27 0.16 0.44
## Rights      0.01 0.02 0.08 0.14 0.26 0.49 0.44
## Group       0.10 0.15 0.22 0.24 0.19 0.10 0.44

```



```
## Disgust      0.13 0.27 0.26 0.18 0.11 0.05 0.44
## Loyalty      0.06 0.15 0.22 0.27 0.18 0.12 0.44
## Violence     0.01 0.02 0.07 0.13 0.28 0.48 0.44
## Desires      0.06 0.15 0.25 0.26 0.18 0.10 0.44
## Profiting    0.08 0.14 0.22 0.27 0.19 0.11 0.44
## Attract      0.45 0.24 0.15 0.09 0.04 0.03 0.44
## Decency      0.12 0.20 0.23 0.19 0.15 0.12 0.44
## Unfair       0.01 0.03 0.08 0.23 0.32 0.33 0.44
## Interests    0.04 0.10 0.21 0.30 0.21 0.13 0.44
## Weak         0.03 0.04 0.14 0.25 0.28 0.26 0.44
## Author       0.02 0.05 0.16 0.27 0.28 0.22 0.44
## Uplifting    0.05 0.12 0.20 0.26 0.21 0.16 0.44
## Rank         0.27 0.24 0.21 0.16 0.08 0.04 0.44
## Emotionally  0.02 0.07 0.15 0.26 0.26 0.24 0.44
## Traditions   0.11 0.28 0.26 0.20 0.09 0.05 0.44
## Treated      0.02 0.05 0.13 0.26 0.28 0.27 0.44
## Betray       0.05 0.15 0.28 0.25 0.15 0.11 0.44
## Respect      0.06 0.16 0.23 0.27 0.17 0.11 0.44
```

Alpha Reliability – Judgment

RELIABILITY

```
/VARIABLES=Slap Heritage Chastity Romantic Revolting Wellbeing Compassion
  Line Kill Grouploy Govharm Sexroles Soldier Sin Justice Wrongdisgust
  Fairly Kidrespect TerrorRev BrotherRev
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
Judgment <- s2 %>% select(c("Slap", "Heritage", "Chastity", "Romantic",
  "Revolting", "Wellbeing", "Compassion", "Line", "Kill", "Grouploy",
  "Govharm", "Sexroles", "Soldier", "Sin", "Justice", "Wrongdisgust",
  "Fairly", "Kidrespect", "TerrorRev", "BrotherRev"))
psych::alpha(Judgment, check.keys = TRUE)
```

```
## Warning in psych::alpha(Judgment, check.keys = TRUE): Some items were negatively correlated
## This is indicated by a negative sign for the variable name.
```

```
##
```

```
## Reliability analysis
```

```
## Call: psych::alpha(x = Judgment, check.keys = TRUE)
```

```
##
```

```
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.75      0.75    0.78     0.13   3 0.0074  3.2 0.65     0.12
```

```

##
## lower alpha upper      95% confidence boundaries
## 0.74 0.75 0.77
##
## Reliability if an item is dropped:
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## Slap-      0.76      0.75      0.79      0.14 3.0   0.0074 0.023
## Heritage    0.73      0.73      0.77      0.12 2.7   0.0081 0.023
## Chastity    0.73      0.73      0.77      0.12 2.6   0.0081 0.022
## Romantic    0.74      0.74      0.78      0.13 2.8   0.0077 0.025
## Revolting   0.73      0.73      0.77      0.12 2.7   0.0080 0.022
## Wellbeing   0.73      0.73      0.77      0.12 2.6   0.0081 0.023
## Compassion- 0.75      0.75      0.78      0.13 2.9   0.0075 0.023
## Line        0.76      0.76      0.79      0.14 3.2   0.0071 0.023
## Kill-       0.76      0.75      0.78      0.13 2.9   0.0073 0.023
## Grouploy    0.75      0.75      0.79      0.13 3.0   0.0075 0.024
## Govharm     0.76      0.76      0.79      0.14 3.2   0.0072 0.020
## Sexroles    0.73      0.72      0.76      0.12 2.6   0.0083 0.023
## Soldier     0.73      0.73      0.77      0.12 2.7   0.0081 0.023
## Sin         0.73      0.73      0.76      0.12 2.7   0.0081 0.022
## Justice-    0.75      0.75      0.78      0.13 2.9   0.0075 0.022
## Wrongdisgust 0.72      0.72      0.76      0.12 2.5   0.0084 0.021
## Fairly-     0.75      0.75      0.78      0.13 2.9   0.0075 0.022
## Kidrespect  0.73      0.72      0.76      0.12 2.6   0.0081 0.022
## TerrorRev-  0.72      0.72      0.76      0.12 2.5   0.0084 0.022
## BrotherRev- 0.77      0.76      0.79      0.14 3.1   0.0071 0.023
##
##      med.r
## Slap-      0.13
## Heritage    0.12
## Chastity    0.12
## Romantic    0.12
## Revolting   0.12
## Wellbeing   0.10
## Compassion- 0.13
## Line        0.14
## Kill-       0.13
## Grouploy    0.13
## Govharm     0.13
## Sexroles    0.10
## Soldier     0.11
## Sin         0.12
## Justice-    0.13
## Wrongdisgust 0.12
## Fairly-     0.13
## Kidrespect  0.12

```

```

## TerrorRev-    0.10
## BrotherRev-   0.13
##
## Item statistics
##              n raw.r std.r    r.cor r.drop mean  sd
## Slap-        1203 0.242 0.250  1.6e-01 0.1277  2.5 1.5
## Heritage      1202 0.538 0.536  5.1e-01 0.4468  3.7 1.5
## Chastity      1195 0.567 0.552  5.3e-01 0.4692  3.9 1.7
## Romantic      1201 0.427 0.415  3.5e-01 0.3088  3.3 1.7
## Revolting     1198 0.535 0.521  5.0e-01 0.4280  3.3 1.7
## Wellbeing     1196 0.548 0.552  5.2e-01 0.4570  2.9 1.5
## Compassion-   1197 0.286 0.320  2.6e-01 0.1981  2.3 1.2
## Line          1195 0.144 0.138  3.4e-02 0.0255  4.2 1.5
## Kill-         1196 0.321 0.311  2.4e-01 0.1863  3.3 1.8
## Grouploy      1197 0.284 0.294  2.1e-01 0.1825  2.8 1.4
## Govharm       1197 0.098 0.095 -9.6e-05 -0.0084  4.5 1.4
## Sexroles      1196 0.602 0.595  5.8e-01 0.5091  3.1 1.7
## Soldier       1196 0.551 0.548  5.2e-01 0.4536  3.6 1.6
## Sin           1196 0.552 0.546  5.3e-01 0.4598  2.3 1.5
## Justice-      1197 0.280 0.317  2.7e-01 0.1952  2.0 1.2
## Wrongdisgust  1196 0.646 0.633  6.4e-01 0.5605  3.1 1.7
## Fairly-       1193 0.284 0.310  2.6e-01 0.1879  2.2 1.3
## Kidrespect    1196 0.568 0.571  5.6e-01 0.4958  4.8 1.3
## TerrorRev-    1200 0.647 0.644  6.4e-01 0.5625  3.1 1.7
## BrotherRev-   1198 0.172 0.156  5.4e-02 0.0401  3.9 1.7
##
## Non missing response frequency for each item
##              1    2    3    4    5    6 miss
## Slap         0.05 0.09 0.10 0.18 0.28 0.30 0.44
## Heritage      0.09 0.17 0.14 0.25 0.24 0.11 0.44
## Chastity      0.11 0.15 0.11 0.22 0.20 0.21 0.44
## Romantic      0.21 0.17 0.13 0.18 0.17 0.13 0.44
## Revolting     0.20 0.19 0.14 0.17 0.17 0.13 0.44
## Wellbeing     0.25 0.23 0.17 0.20 0.10 0.06 0.44
## Compassion    0.01 0.05 0.09 0.21 0.35 0.28 0.44
## Line          0.07 0.11 0.10 0.21 0.28 0.24 0.44
## Kill          0.16 0.16 0.15 0.09 0.21 0.23 0.44
## Grouploy      0.21 0.25 0.23 0.18 0.10 0.02 0.44
## Govharm       0.03 0.07 0.10 0.21 0.31 0.28 0.44
## Sexroles      0.24 0.18 0.11 0.24 0.13 0.09 0.44
## Soldier       0.14 0.16 0.15 0.20 0.23 0.13 0.44
## Sin           0.46 0.18 0.10 0.14 0.07 0.04 0.44
## Justice       0.02 0.03 0.04 0.14 0.33 0.44 0.44
## Wrongdisgust  0.24 0.20 0.13 0.19 0.17 0.08 0.44
## Fairly        0.02 0.05 0.08 0.17 0.29 0.39 0.44

```

```
## Kidrespect    0.03 0.05 0.05 0.21 0.32 0.33 0.44
## TerrorRev     0.10 0.13 0.23 0.12 0.15 0.27 0.44
## BrotherRev    0.24 0.19 0.18 0.15 0.10 0.13 0.44
```

Alpha Reliability – Judgment Harm

RELIABILITY

/VARIABLES=Slap Govharm Kill Compassion

/SCALE('ALL VARIABLES')

ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

```
HarmJud <- s2 %>% select(c("Slap", "Govharm", "Kill", "Compassion"))
psych::alpha(HarmJud)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = HarmJud)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##      0.49      0.5    0.43      0.2    1 0.017  4.4 0.93    0.22
##
##   lower alpha upper      95% confidence boundaries
## 0.46 0.49 0.53
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se   var.r
## Slap           0.46      0.47   0.38      0.23 0.90   0.020 0.00034
## Govharm         0.44      0.45   0.36      0.21 0.82   0.020 0.00201
## Kill            0.37      0.38   0.29      0.17 0.61   0.024 0.00278
## Compassion      0.41      0.41   0.32      0.19 0.69   0.021 0.00370
##
##           med.r
## Slap           0.22
## Govharm         0.23
## Kill            0.16
## Compassion      0.22
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Slap      1203  0.60  0.60  0.35  0.25  4.5 1.5
## Govharm    1197  0.59  0.62  0.38  0.27  4.5 1.4
## Kill       1196  0.74  0.67  0.49  0.35  3.7 1.8
## Compassion 1197  0.59  0.65  0.45  0.32  4.7 1.2
```

```
##
## Non missing response frequency for each item
##      1      2      3      4      5      6 miss
## Slap      0.05 0.09 0.10 0.18 0.28 0.30 0.44
## Govharm    0.03 0.07 0.10 0.21 0.31 0.28 0.44
## Kill       0.16 0.16 0.15 0.09 0.21 0.23 0.44
## Compassion 0.01 0.05 0.09 0.21 0.35 0.28 0.44
```

Alpha Reliability – Harm

```
RELIABILITY
/VARIABLES=Slap Govharm Kill Compassion Harmed Emotionally Weak Violence
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
Harm <- s2 %>% select(c("Slap", "Govharm", "Kill", "Compassion", "Harmed",
  "Emotionally", "Weak", "Violence"))
psych::alpha(Harm)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = Harm)
##
##      raw_alpha std.alpha G6(smc) average_r S/N      ase mean    sd median_r
##          0.7      0.72    0.71      0.24 2.6 0.0097  4.6 0.88      0.22
##
## lower alpha upper      95% confidence boundaries
## 0.68 0.7 0.72
##
## Reliability if an item is dropped:
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r
## Slap          0.70      0.72    0.70      0.27 2.6  0.0098 0.0082
## Govharm        0.69      0.71    0.70      0.26 2.5  0.0101 0.0100
## Kill           0.69      0.70    0.68      0.25 2.3  0.0104 0.0117
## Compassion     0.67      0.69    0.68      0.24 2.3  0.0108 0.0111
## Harmed         0.66      0.68    0.66      0.23 2.1  0.0110 0.0068
## Emotionally    0.65      0.67    0.65      0.22 2.0  0.0115 0.0074
## Weak           0.67      0.69    0.67      0.24 2.2  0.0108 0.0080
## Violence       0.66      0.67    0.65      0.22 2.0  0.0113 0.0076
##
##      med.r
## Slap      0.23
## Govharm   0.23
```

```

## Kill      0.22
## Compassion 0.21
## Harmed    0.22
## Emotionally 0.22
## Weak      0.22
## Violence  0.21
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Slap      1203  0.54  0.46  0.32  0.27  4.5 1.5
## Govharm   1197  0.52  0.49  0.36  0.31  4.5 1.4
## Kill      1196  0.67  0.55  0.44  0.37  3.7 1.8
## Compassion 1197  0.58  0.58  0.48  0.41  4.7 1.2
## Harmed    1209  0.66  0.63  0.57  0.46  5.2 1.1
## Emotionally 1198  0.70  0.67  0.62  0.51  4.4 1.3
## Weak      1198  0.63  0.60  0.52  0.41  4.5 1.3
## Violence  1202  0.67  0.66  0.61  0.50  5.1 1.1
##
## Non missing response frequency for each item
##           1    2    3    4    5    6 miss
## Slap      0.05 0.09 0.10 0.18 0.28 0.30 0.44
## Govharm   0.03 0.07 0.10 0.21 0.31 0.28 0.44
## Kill      0.16 0.16 0.15 0.09 0.21 0.23 0.44
## Compassion 0.01 0.05 0.09 0.21 0.35 0.28 0.44
## Harmed    0.01 0.01 0.06 0.13 0.25 0.54 0.43
## Emotionally 0.02 0.07 0.15 0.26 0.26 0.24 0.44
## Weak      0.03 0.04 0.14 0.25 0.28 0.26 0.44
## Violence  0.01 0.02 0.07 0.13 0.28 0.48 0.44

```

Alpha Reliability – Relevance Harm

```

RELIABILITY
/VARIABLES=Harmed Emotionally Weak Violence
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

```

```

HarmRel <- s2 %>% select(c("Harmed", "Emotionally", "Weak", "Violence"))
psych::alpha(HarmRel)

```

```

##
## Reliability analysis
## Call: psych::alpha(x = HarmRel)

```

```
##
##   raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r
##     0.71      0.72    0.66      0.39 2.5 0.01 4.8 0.89      0.4
##
##   lower alpha upper      95% confidence boundaries
## 0.69 0.71 0.73
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## Harmed      0.64      0.64    0.55      0.37 1.8 0.013 0.00252
## Emotionally 0.63      0.64    0.55      0.37 1.8 0.014 0.00562
## Weak        0.69      0.69    0.60      0.43 2.2 0.012 0.00061
## Violence    0.65      0.65    0.55      0.38 1.8 0.013 0.00146
##           med.r
## Harmed      0.39
## Emotionally 0.34
## Weak        0.41
## Violence    0.39
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean sd
## Harmed    1209 0.74 0.75 0.63 0.53 5.2 1.1
## Emotionally 1198 0.77 0.75 0.63 0.53 4.4 1.3
## Weak       1198 0.71 0.69 0.52 0.45 4.5 1.3
## Violence   1202 0.73 0.74 0.61 0.51 5.1 1.1
##
## Non missing response frequency for each item
##           1 2 3 4 5 6 miss
## Harmed    0.01 0.01 0.06 0.13 0.25 0.54 0.43
## Emotionally 0.02 0.07 0.15 0.26 0.26 0.24 0.44
## Weak       0.03 0.04 0.14 0.25 0.28 0.26 0.44
## Violence   0.01 0.02 0.07 0.13 0.28 0.48 0.44
```

Alpha Reliability – Relevance Fairness

RELIABILITY

/VARIABLES=Rights Profiting Unfair Treated

/SCALE('ALL VARIABLES')

ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

```
FairnessRel <- s2 %>% select(c("Rights", "Profiting", "Unfair", "Treated"))
psych::alpha(FairnessRel)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = FairnessRel)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##       0.7      0.71    0.66      0.38 2.5 0.011  4.5 0.91      0.38
##
##   lower alpha upper      95% confidence boundaries
## 0.68 0.7 0.72
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r med.r
## Rights      0.62      0.63    0.53      0.36 1.7   0.014 0.0018 0.37
## Profiting   0.71      0.71    0.63      0.45 2.5   0.011 0.0036 0.45
## Unfair      0.64      0.65    0.57      0.38 1.8   0.014 0.0167 0.37
## Treated     0.59      0.60    0.52      0.34 1.5   0.015 0.0095 0.31
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Rights    1204  0.74  0.76  0.65   0.53  5.1 1.2
## Profiting  1201  0.70  0.66  0.46   0.39  3.7 1.4
## Unfair     1201  0.72  0.73  0.59   0.50  4.8 1.2
## Treated    1200  0.78  0.78  0.68   0.56  4.5 1.2
##
## Non missing response frequency for each item
##           1  2  3  4  5  6 miss
## Rights    0.01 0.02 0.08 0.14 0.26 0.49 0.44
## Profiting  0.08 0.14 0.22 0.27 0.19 0.11 0.44
## Unfair     0.01 0.03 0.08 0.23 0.32 0.33 0.44
## Treated    0.02 0.05 0.13 0.26 0.28 0.27 0.44
```

Alpha Reliability – Fairness

```
RELIABILITY
/VARIABLES=Rights Profiting Unfair Treated Fairly Justice Line TerrorRev
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
Fairness <- s2 %>% select(c("Rights", "Profiting", "Unfair", "Treated",
  "Fairly", "Justice", "Line", "TerrorRev"))
psych::alpha(Fairness)
```



```
##
## Reliability analysis
## Call: psych::alpha(x = Fairness)
##
##   raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r
##      0.69      0.71      0.72      0.24 2.5 0.01  4.5 0.84      0.26
##
## lower alpha upper      95% confidence boundaries
## 0.67 0.69 0.71
##
## Reliability if an item is dropped:
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## Rights      0.63      0.66      0.65      0.21 1.9  0.0125 0.018  0.19
## Profiting    0.67      0.70      0.70      0.25 2.3  0.0111 0.023  0.26
## Unfair       0.64      0.67      0.67      0.22 2.0  0.0120 0.022  0.19
## Treated      0.61      0.64      0.64      0.21 1.8  0.0130 0.018  0.19
## Fairly       0.64      0.68      0.67      0.23 2.1  0.0119 0.020  0.26
## Justice      0.65      0.68      0.67      0.23 2.1  0.0118 0.020  0.26
## Line         0.73      0.74      0.74      0.29 2.9  0.0092 0.013  0.28
## TerrorRev    0.69      0.71      0.71      0.26 2.5  0.0102 0.022  0.27
##
## Item statistics
##      n raw.r std.r r.cor r.drop mean sd
## Rights  1204  0.69  0.69  0.65  0.54  5.1 1.2
## Profiting 1201  0.62  0.53  0.41  0.34  3.7 1.4
## Unfair   1201  0.67  0.65  0.58  0.48  4.8 1.2
## Treated  1200  0.74  0.73  0.70  0.59  4.5 1.2
## Fairly   1193  0.64  0.62  0.56  0.44  4.8 1.3
## Justice  1197  0.61  0.61  0.55  0.44  5.0 1.2
## Line     1195  0.42  0.32  0.14  0.11  4.2 1.5
## TerrorRev 1200  0.58  0.47  0.32  0.27  3.9 1.7
##
## Non missing response frequency for each item
##      1 2 3 4 5 6 miss
## Rights  0.01 0.02 0.08 0.14 0.26 0.49 0.44
## Profiting 0.08 0.14 0.22 0.27 0.19 0.11 0.44
## Unfair  0.01 0.03 0.08 0.23 0.32 0.33 0.44
## Treated  0.02 0.05 0.13 0.26 0.28 0.27 0.44
## Fairly  0.02 0.05 0.08 0.17 0.29 0.39 0.44
## Justice  0.02 0.03 0.04 0.14 0.33 0.44 0.44
## Line    0.07 0.11 0.10 0.21 0.28 0.24 0.44
## TerrorRev 0.10 0.13 0.23 0.12 0.15 0.27 0.44
```

Alpha Reliability – Judgment Fairness

```

RELIABILITY
/VARIABLES=Fairly Justice Line TerrorRev
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

FairnessJud <- s2 %>% select(c("Fairly", "Justice", "Line", "TerrorRev"))
psych::alpha(FairnessJud)

##
## Reliability analysis
## Call: psych::alpha(x = FairnessJud)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.39     0.44    0.43     0.16 0.78 0.022  4.5 0.85     0.11
##
##   lower alpha upper      95% confidence boundaries
## 0.35 0.39 0.44
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r med.r
## Fairly      0.18     0.20    0.15     0.078 0.25   0.030 0.0071 0.052
## Justice     0.20     0.21    0.17     0.083 0.27   0.030 0.0092 0.048
## Line        0.51     0.55    0.49     0.290 1.23   0.019 0.0349 0.192
## TerrorRev   0.39     0.43    0.41     0.202 0.76   0.024 0.0692 0.052
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Fairly   1193  0.67  0.71 0.636  0.360  4.8 1.3
## Justice  1197  0.64  0.71 0.623  0.362  5.0 1.2
## Line     1195  0.49  0.45 0.071  0.046  4.2 1.5
## TerrorRev 1200  0.64  0.56 0.263  0.172  3.9 1.7
##
## Non missing response frequency for each item
##           1    2    3    4    5    6 miss
## Fairly   0.02 0.05 0.08 0.17 0.29 0.39 0.44
## Justice  0.02 0.03 0.04 0.14 0.33 0.44 0.44
## Line     0.07 0.11 0.10 0.21 0.28 0.24 0.44
## TerrorRev 0.10 0.13 0.23 0.12 0.15 0.27 0.44

```

Alpha Reliability – Judgment Fairness minus terror

```
RELIABILITY
```

```
/VARIABLES=Fairly Justice Line
```

```
/SCALE('ALL VARIABLES')
```

```
ALL/MODEL=ALPHA
```

```
/STATISTICS=DESCRIPTIVE SCALE
```

```
/SUMMARY=TOTAL.
```

```
FairnessJud <- s2 %>% select(c("Fairly", "Justice", "Line"))
psych::alpha(FairnessJud)
```

```
##
```

```
## Reliability analysis
```

```
## Call: psych::alpha(x = FairnessJud)
```

```
##
```

##	raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd	median_r
##	0.39	0.43	0.41	0.2	0.76	0.024	4.7	0.89	0.052

```
##
```

```
## lower alpha upper 95% confidence boundaries
```

```
## 0.34 0.39 0.44
```

```
##
```

```
## Reliability if an item is dropped:
```

##	raw_alpha	std.alpha	G6(smc)	average_r	S/N	alpha	se	var.r	med.r
## Fairly	0.095	0.098	0.052	0.052	0.11	0.038	NA	0.052	
## Justice	0.090	0.091	0.048	0.048	0.10	0.039	NA	0.048	
## Line	0.669	0.671	0.505	0.505	2.04	0.014	NA	0.505	

```
##
```

```
## Item statistics
```

##		n	raw.r	std.r	r.cor	r.drop	mean	sd
## Fairly	1193	0.72	0.76	0.616	0.335	4.8	1.3	
## Justice	1197	0.70	0.76	0.619	0.357	5.0	1.2	
## Line	1195	0.62	0.54	0.078	0.057	4.2	1.5	

```
##
```

```
## Non missing response frequency for each item
```

##		1	2	3	4	5	6	miss
## Fairly	0.02	0.05	0.08	0.17	0.29	0.39	0.44	
## Justice	0.02	0.03	0.04	0.14	0.33	0.44	0.44	
## Line	0.07	0.11	0.10	0.21	0.28	0.24	0.44	

Alpha Reliability – Relevance In-group

```
RELIABILITY
```

```
/VARIABLES=Betray Interests Loyalty Group Friend
```

```

/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

IngroupRel <- s2 %>% select(c("Betray", "Interests", "Loyalty", "Group",
  "Friend"))
psych::alpha(IngroupRel)

##
## Reliability analysis
## Call: psych::alpha(x = IngroupRel)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.71     0.71    0.69     0.33 2.5 0.0099  3.7 0.97     0.34
##
##   lower alpha upper      95% confidence boundaries
## 0.69 0.71 0.73
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## Betray      0.62      0.62    0.57     0.29 1.6   0.013 0.012 0.31
## Interests   0.71      0.72    0.67     0.39 2.5   0.010 0.008 0.38
## Loyalty     0.64      0.64    0.60     0.31 1.8   0.013 0.015 0.33
## Group       0.65      0.65    0.61     0.32 1.9   0.013 0.017 0.31
## Friend      0.69      0.70    0.65     0.36 2.3   0.011 0.011 0.37
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Betray   1199  0.74  0.76  0.69  0.57  3.6 1.3
## Interests 1200  0.57  0.59  0.42  0.34  3.9 1.3
## Loyalty   1202  0.72  0.73  0.64  0.54  3.7 1.4
## Group     1203  0.72  0.71  0.60  0.51  3.6 1.5
## Friend    1204  0.66  0.63  0.48  0.40  3.5 1.6
##
## Non missing response frequency for each item
##           1    2    3    4    5    6 miss
## Betray    0.05 0.15 0.28 0.25 0.15 0.11 0.44
## Interests 0.04 0.10 0.21 0.30 0.21 0.13 0.44
## Loyalty   0.06 0.15 0.22 0.27 0.18 0.12 0.44
## Group     0.10 0.15 0.22 0.24 0.19 0.10 0.44
## Friend    0.15 0.16 0.19 0.20 0.18 0.13 0.44

```

Alpha Reliability – In-group

```

RELIABILITY
/VARIABLES=Betray Interests Loyalty Group Friend BrotherRev Romantic
  Wellbeing Grouploy
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

Ingroup <- s2 %>% select(c("Betray", "Interests", "Loyalty", "Group", "Friend",
  "BrotherRev", "Romantic", "Wellbeing", "Grouploy"))
psych::alpha(Ingroup)

##
## Reliability analysis
## Call: psych::alpha(x = Ingroup)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd median_r
##       0.59      0.61    0.63      0.15 1.6 0.013   3.4 0.9      0.1
##
##   lower alpha upper      95% confidence boundaries
## 0.56 0.59 0.62
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## Betray          0.50      0.52    0.53      0.12 1.1   0.016 0.016 0.090
## Interests       0.58      0.60    0.61      0.16 1.5   0.014 0.021 0.093
## Loyalty         0.50      0.52    0.54      0.12 1.1   0.016 0.018 0.090
## Group           0.52      0.54    0.56      0.13 1.2   0.016 0.020 0.093
## Friend          0.54      0.56    0.58      0.14 1.3   0.015 0.022 0.090
## BrotherRev      0.61      0.63    0.64      0.18 1.7   0.013 0.024 0.126
## Romantic        0.62      0.63    0.65      0.18 1.7   0.012 0.024 0.126
## Wellbeing       0.60      0.62    0.64      0.17 1.7   0.013 0.025 0.125
## Grouploy        0.57      0.59    0.61      0.15 1.4   0.014 0.027 0.093
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Betray    1199 0.68 0.68 0.68 0.510 3.6 1.3
## Interests 1200 0.48 0.44 0.33 0.218 3.9 1.3
## Loyalty   1202 0.67 0.68 0.67 0.510 3.7 1.4
## Group     1203 0.65 0.62 0.58 0.439 3.6 1.5
## Friend    1204 0.61 0.55 0.49 0.366 3.5 1.6
## BrotherRev 1198 0.42 0.32 0.14 0.106 3.1 1.7
## Romantic  1201 0.48 0.32 0.13 0.095 3.3 1.7

```

```
## Wellbeing 1196 0.45 0.34 0.16 0.132 2.9 1.5
## Grouploy 1197 0.49 0.47 0.35 0.265 2.8 1.4
##
## Non missing response frequency for each item
##      1      2      3      4      5      6 miss
## Betray 0.05 0.15 0.28 0.25 0.15 0.11 0.44
## Interests 0.04 0.10 0.21 0.30 0.21 0.13 0.44
## Loyalty 0.06 0.15 0.22 0.27 0.18 0.12 0.44
## Group 0.10 0.15 0.22 0.24 0.19 0.10 0.44
## Friend 0.15 0.16 0.19 0.20 0.18 0.13 0.44
## BrotherRev 0.24 0.19 0.18 0.15 0.10 0.13 0.44
## Romantic 0.21 0.17 0.13 0.18 0.17 0.13 0.44
## Wellbeing 0.25 0.23 0.17 0.20 0.10 0.06 0.44
## Grouploy 0.21 0.25 0.23 0.18 0.10 0.02 0.44
```

Alpha Reliability – Judgment In-group

```
RELIABILITY
/VARIABLES=BrotherRev Romantic Wellbeing Grouploy
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
IngroupJud <- s2 %>% select(c("BrotherRev", "Romantic", "Wellbeing", "Grouploy"))
psych::alpha(IngroupJud)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = IngroupJud)
##
## raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r
## 0.24 0.25 0.21 0.076 0.33 0.027 3 0.88 0.071
##
## lower alpha upper 95% confidence boundaries
## 0.19 0.24 0.29
##
## Reliability if an item is dropped:
## raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## BrotherRev 0.30 0.30 0.227 0.126 0.43 0.026 0.0016
## Romantic 0.16 0.17 0.125 0.064 0.21 0.032 0.0034
## Wellbeing 0.13 0.14 0.099 0.051 0.16 0.033 0.0014
## Grouploy 0.16 0.17 0.129 0.063 0.20 0.031 0.0081
## med.r
```

```
## BrotherRev 0.126
## Romantic 0.055
## Wellbeing 0.055
## Grouploy 0.011
##
## Item statistics
##          n raw.r std.r r.cor r.drop mean  sd
## BrotherRev 1198 0.52 0.49 0.08 0.037 3.1 1.7
## Romantic 1201 0.61 0.57 0.30 0.139 3.3 1.7
## Wellbeing 1196 0.57 0.59 0.34 0.164 2.9 1.5
## Grouploy 1197 0.51 0.57 0.29 0.143 2.8 1.4
##
## Non missing response frequency for each item
##          1 2 3 4 5 6 miss
## BrotherRev 0.24 0.19 0.18 0.15 0.10 0.13 0.44
## Romantic 0.21 0.17 0.13 0.18 0.17 0.13 0.44
## Wellbeing 0.25 0.23 0.17 0.20 0.10 0.06 0.44
## Grouploy 0.21 0.25 0.23 0.18 0.10 0.02 0.44
```

Alpha Reliability – Judgment In-group minus brother

RELIABILITY

/VARIABLES=Romantic Wellbeing Grouploy

/SCALE('ALL VARIABLES')

ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

```
IngroupJud <- s2 %>% select(c("Romantic", "Wellbeing", "Grouploy"))
psych::alpha(IngroupJud)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = IngroupJud)
##
##   raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r
##      0.3      0.3    0.23    0.13 0.43 0.026 3 1 0.13
##
## lower alpha upper      95% confidence boundaries
## 0.25 0.3 0.35
##
## Reliability if an item is dropped:
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## Romantic      0.22      0.22 0.126    0.126 0.29 0.033 NA 0.126
```

```
## Wellbeing      0.15      0.16  0.086      0.086 0.19      0.036      NA 0.086
## Grouploy      0.28      0.29  0.167      0.167 0.40      0.031      NA 0.167
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Romantic 1201  0.70  0.65  0.31   0.17  3.3 1.7
## Wellbeing 1196  0.66  0.67  0.36   0.20  2.9 1.5
## Grouploy  1197  0.57  0.63  0.25   0.14  2.8 1.4
##
## Non missing response frequency for each item
##           1    2    3    4    5    6 miss
## Romantic  0.21 0.17 0.13 0.18 0.17 0.13 0.44
## Wellbeing 0.25 0.23 0.17 0.20 0.10 0.06 0.44
## Grouploy  0.21 0.25 0.23 0.18 0.10 0.02 0.44
```

Alpha Reliability – Relevance Authority

RELIABILITY

/VARIABLES=Author Duties Traditions Respect Rank

/SCALE('ALL VARIABLES')

ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

```
AuthorityRel <- s2 %>% select(c("Author", "Duties", "Traditions", "Respect",
                                "Rank"))
psych::alpha(AuthorityRel)
```

##

Reliability analysis

Call: psych::alpha(x = AuthorityRel)

##

```
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.64      0.64    0.61      0.26 1.8 0.012  3.6 0.86     0.26
```

##

lower alpha upper 95% confidence boundaries

0.61 0.64 0.66

##

Reliability if an item is dropped:

```
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r med.r
## Author          0.60      0.61    0.56      0.28 1.5   0.014 0.0206 0.24
## Duties          0.57      0.57    0.53      0.25 1.4   0.015 0.0164 0.21
## Traditions      0.55      0.56    0.50      0.24 1.3   0.016 0.0102 0.22
## Respect         0.53      0.53    0.47      0.22 1.1   0.017 0.0042 0.21
```



```
## Rank          0.67      0.67      0.61      0.33 2.0      0.012 0.0093  0.30
##
## Item statistics
##          n raw.r std.r r.cor r.drop mean  sd
## Author    1196  0.60  0.62  0.44   0.36  4.4 1.2
## Duties    1202  0.65  0.66  0.53   0.42  4.2 1.3
## Traditions 1200  0.69  0.69  0.59   0.47  3.0 1.3
## Respect   1199  0.73  0.72  0.66   0.51  3.7 1.4
## Rank      1196  0.54  0.51  0.28   0.23  2.7 1.4
##
## Non missing response frequency for each item
##          1      2      3      4      5      6 miss
## Author    0.02  0.05  0.16  0.27  0.28  0.22  0.44
## Duties    0.03  0.07  0.17  0.30  0.27  0.16  0.44
## Traditions 0.11  0.28  0.26  0.20  0.09  0.05  0.44
## Respect   0.06  0.16  0.23  0.27  0.17  0.11  0.44
## Rank      0.27  0.24  0.21  0.16  0.08  0.04  0.44
```

Alpha Reliability – Authority

RELIABILITY

```
/VARIABLES=Author Duties Traditions Respect Rank Sexroles Soldier
Heritage Kidrespect
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
Authority <- s2 %>% select(c("Author", "Duties", "Traditions", "Respect",
  "Rank", "Sexroles", "Soldier", "Heritage", "Kidrespect"))
psych::alpha(Authority)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = Authority)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean   sd median_r
##     0.73      0.73      0.74      0.23 2.7 0.0088  3.7 0.91      0.23
##
##   lower alpha upper      95% confidence boundaries
## 0.71 0.73 0.74
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
```

```

## Author      0.72      0.73      0.73      0.25 2.7      0.0090 0.019 0.28
## Duties      0.70      0.71      0.71      0.23 2.4      0.0096 0.021 0.23
## Traditions  0.68      0.69      0.69      0.22 2.2      0.0104 0.018 0.21
## Respect     0.66      0.67      0.67      0.20 2.0      0.0109 0.014 0.20
## Rank        0.74      0.75      0.75      0.27 3.0      0.0083 0.015 0.29
## Sexroles    0.72      0.72      0.73      0.25 2.6      0.0092 0.019 0.25
## Soldier     0.71      0.72      0.72      0.24 2.5      0.0094 0.018 0.23
## Heritage    0.69      0.70      0.70      0.23 2.3      0.0101 0.017 0.22
## Kidrespect  0.68      0.69      0.69      0.22 2.2      0.0103 0.016 0.21
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Author    1196  0.51  0.46  0.33  0.27  4.4 1.2
## Duties    1202  0.59  0.57  0.49  0.41  4.2 1.3
## Traditions 1200  0.67  0.67  0.63  0.53  3.0 1.3
## Respect   1199  0.73  0.74  0.73  0.61  3.7 1.4
## Rank      1196  0.44  0.35  0.20  0.16  2.7 1.4
## Sexroles   1196  0.61  0.50  0.39  0.34  3.1 1.7
## Soldier    1196  0.62  0.53  0.43  0.37  3.6 1.6
## Heritage   1202  0.66  0.61  0.55  0.46  3.7 1.5
## Kidrespect 1196  0.66  0.66  0.62  0.53  4.8 1.3
##
## Non missing response frequency for each item
##           1    2    3    4    5    6 miss
## Author    0.02 0.05 0.16 0.27 0.28 0.22 0.44
## Duties    0.03 0.07 0.17 0.30 0.27 0.16 0.44
## Traditions 0.11 0.28 0.26 0.20 0.09 0.05 0.44
## Respect   0.06 0.16 0.23 0.27 0.17 0.11 0.44
## Rank      0.27 0.24 0.21 0.16 0.08 0.04 0.44
## Sexroles   0.24 0.18 0.11 0.24 0.13 0.09 0.44
## Soldier    0.14 0.16 0.15 0.20 0.23 0.13 0.44
## Heritage   0.09 0.17 0.14 0.25 0.24 0.11 0.44
## Kidrespect 0.03 0.05 0.05 0.21 0.32 0.33 0.44

```

Alpha Reliability – Judgment Authority

```

RELIABILITY
/VARIABLES=Sexroles Soldier Heritage Kidrespect
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

```

```
AuthorityJud <- s2 %>% select(c("Sexroles", "Soldier", "Heritage", "Kidrespect"))
psych::alpha(AuthorityJud)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = AuthorityJud)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd median_r
##       0.64      0.65    0.58      0.32 1.8 0.013  3.8 1.1      0.3
##
##   lower alpha upper      95% confidence boundaries
## 0.61 0.64 0.66
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se   var.r
## Sexroles      0.59      0.60    0.51      0.34 1.5   0.015 0.00346
## Soldier       0.58      0.59    0.49      0.32 1.4   0.016 0.00173
## Heritage      0.58      0.59    0.49      0.32 1.4   0.016 0.00205
## Kidrespect    0.54      0.54    0.44      0.28 1.2   0.017 0.00015
##
##           med.r
## Sexroles    0.37
## Soldier     0.30
## Heritage     0.30
## Kidrespect  0.29
##
## Item statistics
##           n raw.r std.r r.cor r.drop mean  sd
## Sexroles  1196 0.70 0.67 0.49 0.39 3.1 1.7
## Soldier   1196 0.71 0.69 0.52 0.41 3.6 1.6
## Heritage  1202 0.69 0.69 0.52 0.41 3.7 1.5
## Kidrespect 1196 0.69 0.73 0.60 0.48 4.8 1.3
##
## Non missing response frequency for each item
##           1 2 3 4 5 6 miss
## Sexroles  0.24 0.18 0.11 0.24 0.13 0.09 0.44
## Soldier   0.14 0.16 0.15 0.20 0.23 0.13 0.44
## Heritage   0.09 0.17 0.14 0.25 0.24 0.11 0.44
## Kidrespect 0.03 0.05 0.05 0.21 0.32 0.33 0.44
```

Alpha Reliability – Relevance Purity

Note: In the Purity relevance scale calculations, the variable *Disgust* refers to a question that was not reported in the original paper

```

RELIABILITY
/VARIABLES=Disgust Decency Desires Uplifting Unnat
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

PurityRel <- s2 %>% select(c("Disgust", "Decency", "Desires", "Uplifting",
  "Unnat"))
psych::alpha(PurityRel)

##
## Reliability analysis
## Call: psych::alpha(x = PurityRel)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean sd median_r
##     0.76     0.76    0.73     0.39 3.2 0.0081  3.6  1     0.35
##
##   lower alpha upper      95% confidence boundaries
## 0.75 0.76 0.78
##
## Reliability if an item is dropped:
##
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r med.r
## Disgust      0.69      0.69    0.63     0.36 2.2  0.0109 0.0052  0.34
## Decency      0.70      0.70    0.65     0.36 2.3  0.0108 0.0114  0.34
## Desires      0.74      0.74    0.70     0.41 2.8  0.0092 0.0168  0.42
## Uplifting    0.76      0.76    0.71     0.44 3.1  0.0085 0.0097  0.44
## Unnat        0.70      0.70    0.65     0.37 2.3  0.0105 0.0074  0.35
##
## Item statistics
##
##           n raw.r std.r r.cor r.drop mean  sd
## Disgust  1201  0.77  0.77  0.71  0.61  3.0 1.4
## Decency  1201  0.77  0.76  0.68  0.59  3.4 1.5
## Desires  1202  0.66  0.67  0.53  0.47  3.7 1.4
## Uplifting 1199  0.62  0.63  0.47  0.41  3.9 1.4
## Unnat    1206  0.75  0.75  0.67  0.57  3.8 1.5
##
## Non missing response frequency for each item
##
##           1  2  3  4  5  6 miss
## Disgust  0.13 0.27 0.26 0.18 0.11 0.05 0.44
## Decency  0.12 0.20 0.23 0.19 0.15 0.12 0.44
## Desires  0.06 0.15 0.25 0.26 0.18 0.10 0.44
## Uplifting 0.05 0.12 0.20 0.26 0.21 0.16 0.44
## Unnat    0.07 0.15 0.20 0.24 0.20 0.15 0.44

```

Alpha Reliability – Purity

```
RELIABILITY
/VARIABLES=Disgust Decency Desires Uplifting Unnat Chastity Sin
  Wrongdisgust Revolting
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
Purity <- s2 %>% select(c("Disgust", "Decency", "Desires", "Uplifting",
  "Unnat", "Chastity", "Sin", "Wrongdisgust", "Revolting"))
psych::alpha(Purity)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = Purity)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd median_r
##     0.83     0.83    0.83     0.35 4.8 0.0055  3.4 1.1     0.35
##
##   lower alpha upper    95% confidence boundaries
## 0.82 0.83 0.84
##
## Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r
## Disgust         0.80     0.80    0.80     0.33 4.0  0.0064 0.013
## Decency         0.79     0.79    0.79     0.32 3.8  0.0067 0.014
## Desires         0.83     0.83    0.82     0.37 4.7  0.0056 0.013
## Uplifting       0.83     0.83    0.83     0.38 4.9  0.0055 0.012
## Unnat           0.81     0.80    0.80     0.34 4.1  0.0063 0.014
## Chastity        0.82     0.82    0.82     0.36 4.5  0.0058 0.015
## Sin             0.81     0.81    0.81     0.35 4.4  0.0061 0.015
## Wrongdisgust    0.80     0.80    0.80     0.34 4.1  0.0065 0.011
## Revolting       0.81     0.81    0.81     0.35 4.3  0.0061 0.014
##
##           med.r
## Disgust       0.34
## Decency       0.31
## Desires       0.40
## Uplifting     0.40
## Unnat         0.35
## Chastity      0.37
## Sin           0.35
## Wrongdisgust  0.34
## Revolting     0.34
```

```
##
## Item statistics
##      n raw.r std.r r.cor r.drop mean  sd
## Disgust      1201  0.74  0.73  0.70   0.63  3.0 1.4
## Decency      1201  0.76  0.77  0.75   0.69  3.4 1.5
## Desires      1202  0.59  0.54  0.45   0.40  3.7 1.4
## Uplifting     1199  0.55  0.51  0.40   0.35  3.9 1.4
## Unnat        1206  0.72  0.70  0.66   0.59  3.8 1.5
## Chastity     1195  0.65  0.59  0.51   0.47  3.9 1.7
## Sin          1196  0.69  0.63  0.57   0.52  2.3 1.5
## Wrongdisgust 1196  0.76  0.72  0.69   0.62  3.1 1.7
## Revolting    1198  0.69  0.66  0.60   0.55  3.3 1.7
##
## Non missing response frequency for each item
##      1      2      3      4      5      6 miss
## Disgust      0.13 0.27 0.26 0.18 0.11 0.05 0.44
## Decency      0.12 0.20 0.23 0.19 0.15 0.12 0.44
## Desires      0.06 0.15 0.25 0.26 0.18 0.10 0.44
## Uplifting     0.05 0.12 0.20 0.26 0.21 0.16 0.44
## Unnat        0.07 0.15 0.20 0.24 0.20 0.15 0.44
## Chastity     0.11 0.15 0.11 0.22 0.20 0.21 0.44
## Sin          0.46 0.18 0.10 0.14 0.07 0.04 0.44
## Wrongdisgust 0.24 0.20 0.13 0.19 0.17 0.08 0.44
## Revolting    0.20 0.19 0.14 0.17 0.17 0.13 0.44
```

Alpha Reliability – Judgment Purity

```
RELIABILITY
/VARIABLES=Chastity Sin Wrongdisgust Revolting
/SCALE('ALL VARIABLES')
ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.
```

```
PurityJud <- s2 %>% select(c("Chastity", "Sin", "Wrongdisgust", "Revolting"))
psych::alpha(PurityJud)
```

```
##
## Reliability analysis
## Call: psych::alpha(x = PurityJud)
##
##      raw_alpha std.alpha G6(smc) average_r S/N      ase mean  sd median_r
##      0.74      0.74      0.68      0.41 2.8 0.0093  3.1 1.2      0.41
##
```

```

## lower alpha upper      95% confidence boundaries
## 0.72 0.74 0.75
##
## Reliability if an item is dropped:
##      raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r
## Chastity      0.72      0.72   0.63      0.46 2.6   0.011 0.0026
## Sin           0.67      0.67   0.59      0.40 2.0   0.012 0.0090
## Wrongdisgust  0.63      0.63   0.54      0.36 1.7   0.014 0.0024
## Revolting     0.69      0.69   0.60      0.42 2.2   0.012 0.0027
##
##      med.r
## Chastity     0.48
## Sin          0.41
## Wrongdisgust 0.38
## Revolting    0.41
##
## Item statistics
##      n raw.r std.r r.cor r.drop mean  sd
## Chastity  1195  0.70  0.70  0.53  0.46  3.9 1.7
## Sin       1196  0.74  0.76  0.63  0.54  2.3 1.5
## Wrongdisgust 1196  0.80  0.80  0.71  0.61  3.1 1.7
## Revolting  1198  0.75  0.74  0.60  0.51  3.3 1.7
##
## Non missing response frequency for each item
##      1 2 3 4 5 6 miss
## Chastity 0.11 0.15 0.11 0.22 0.20 0.21 0.44
## Sin      0.46 0.18 0.10 0.14 0.07 0.04 0.44
## Wrongdisgust 0.24 0.20 0.13 0.19 0.17 0.08 0.44
## Revolting 0.20 0.19 0.14 0.17 0.17 0.13 0.44

```

Correlation between foundation sub scale averages

CORRELATIONS

```

/VARIABLES=HarmRel RecRel InRel HyRel PurRel HarmSt RecSt InSt HySt PurSt
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

```

```

subavg <- s2 %>% select(c("HarmRel", "RecRel", "InRel", "HyRel", "PurRel",
  "HarmSt", "RecSt", "InSt", "HySt", "PurSt"))
cor(subavg, method = "pearson", use = "complete.obs")

```

```

##      HarmRel      RecRel      InRel      HyRel      PurRel
## HarmRel  1.00000000  0.64976599  0.31616816  0.24764826  0.2744038
## RecRel   0.64976599  1.00000000  0.29412488  0.26405458  0.1865184
## InRel    0.31616816  0.29412488  1.00000000  0.52483446  0.5137495

```

```

## HyRel      0.24764826  0.26405458  0.52483446  1.00000000  0.5276993
## PurRel      0.27440377  0.18651839  0.51374951  0.52769931  1.0000000
## HarmSt      0.42581076  0.39306777  0.12436531  0.05270075  0.1230615
## RecSt       0.33780842  0.46625941 -0.06632827 -0.05537820 -0.1238996
## InSt        -0.17179003 -0.22179588  0.20003054  0.10422874  0.1435643
## HySt        -0.10633347 -0.18022434  0.26134306  0.41686076  0.3704208
## PurSt       -0.03516021 -0.08963299  0.28918555  0.36771296  0.5893147
##              HarmSt      RecSt      InSt      HySt      PurSt
## HarmRel      0.42581076  0.33780842 -0.1717900 -0.1063335 -0.03516021
## RecRel       0.39306777  0.46625941 -0.2217959 -0.1802243 -0.08963299
## InRel        0.12436531 -0.06632827  0.2000305  0.2613431  0.28918555
## HyRel        0.05270075 -0.05537820  0.1042287  0.4168608  0.36771296
## PurRel       0.12306152 -0.12389955  0.1435643  0.3704208  0.58931469
## HarmSt       1.00000000  0.38441502 -0.1769042 -0.1193447  0.04445856
## RecSt        0.38441502  1.00000000 -0.3072186 -0.2590003 -0.26625529
## InSt         -0.17690418 -0.30721864  1.0000000  0.3614733  0.24329348
## HySt         -0.11934472 -0.25900031  0.3614733  1.0000000  0.59188056
## PurSt        0.04445856 -0.26625529  0.2432935  0.5918806  1.00000000

```

Correlation of Difference score and politics

CORRELATIONS

/VARIABLES=HFminusIAP politics

/PRINT=TWOTAIL NOSIG

/MISSING=PAIRWISE.

```
cor(s2$HFminusIAP_Avg, s2$politics, method = "pearson", use = "complete.obs")
```

```
## [1] -0.5709203
```

Indiv (HandF renamed to HFAvg) and Binding (IandAandP to IAPAvg) paired t-test

T-TEST

PAIRS = HandF WITH IandAandP (PAIRED)

/CRITERIA = CI(.95)

/MISSING = ANALYSIS.

```
t.test(s2$HFAvg, s2$IAPAvg, paired = TRUE)
```

```
##
```

```
## Paired t-test
```

```
##
```

```
## data: s2$HFAvg and s2$IAPAvg
```



```
## t = 42.908, df = 1755, p-value < 2.2e-16
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  1.021606 1.119474
## sample estimates:
## mean of the differences
##                1.07054
```

One sample t-test of diff score (HFminusIAP_Avg)

```
T-TEST
/TESTVAL = 0
/MISSING = ANALYSIS
/VARIABLES = HFminusIAP
/CRITERIA = CI(.95).
```

```
t.test(s2$HFminusIAP_Avg)
```

```
##
## One Sample t-test
##
## data:  s2$HFminusIAP_Avg
## t = 42.908, df = 1755, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  1.021606 1.119474
## sample estimates:
## mean of x
##  1.07054
```

Oneway Summary variables by gender

```
ONEWAY
HarmAvg RecAvg InAvg HyAvg PurAvg politri BY gender
/MISSING ANALYSIS.
```

```
summary(aov(HarmAvg ~ gender, data = s2)) #harm
```

```
##                Df Sum Sq Mean Sq F value Pr(>F)
## gender          1  105.5   105.54   148.7 <2e-16 ***
## Residuals     1756 1246.4     0.71
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 377 observations deleted due to missingness
```

```
summary(aov(RecAvg ~ gender, data = s2)) #Fairness
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## gender          1    31.5   31.464    45.66 1.91e-11 ***
## Residuals     1749  1205.3    0.689
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 384 observations deleted due to missingness
```

```
summary(aov(InAvg ~ gender, data = s2)) #Ingroup
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## gender          1      3   3.0454    3.757 0.0527 .
## Residuals     1750   1418    0.8105
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 383 observations deleted due to missingness
```

```
summary(aov(HyAvg ~ gender, data = s2)) #Authority
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## gender          1     2.2   2.2013    2.669 0.102
## Residuals     1750  1443.1    0.8246
## 383 observations deleted due to missingness
```

```
summary(aov(PurAvg ~ gender, data = s2)) #Purity
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## gender          1    10.7   10.718    8.837 0.00299 **
## Residuals     1751  2123.7    1.213
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 382 observations deleted due to missingness
```

```
summary(aov(politri ~ gender, data = s2)) #Politics
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## gender          1    30.4   30.434   47.06 8.97e-12 ***
## Residuals     2131  1378.0    0.647
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 2 observations deleted due to missingness
```

T-test group by gender for foundation averages

T-TEST

```

GROUPS = gender(-1 1)
/MISSING = ANALYSIS
/VARIABLES = HarmAvg RecAvg InAvg HyAvg PurAvg politri
/CRITERIA = CI(.95).

t.test(HarmAvg ~ gender, data = s2) #Harm

##
##  Welch Two Sample t-test
##
## data:  HarmAvg by gender
## t = -11.655, df = 1210.8, p-value < 2.2e-16
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.5899288 -0.4199391
## sample estimates:
## mean in group -1  mean in group 1
##           3.259120           3.764054

t.test(RecAvg ~ gender, data = s2) #Fairness

##
##  Welch Two Sample t-test
##
## data:  RecAvg by gender
## t = -6.5063, df = 1235.8, p-value = 1.116e-10
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.3595876 -0.1929712
## sample estimates:
## mean in group -1  mean in group 1
##           3.338793           3.615072

t.test(InAvg ~ gender, data = s2) #Ingroup

##
##  Welch Two Sample t-test
##
## data:  InAvg by gender
## t = 1.9132, df = 1342.5, p-value = 0.05594
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.002180462  0.174057307
## sample estimates:
## mean in group -1  mean in group 1
##           2.402774           2.316835

```

```
t.test(HyAvg ~ gender, data = s2) #Authority
```

```
##  
## Welch Two Sample t-test  
##  
## data: HyAvg by gender  
## t = 1.6001, df = 1308.3, p-value = 0.1098  
## alternative hypothesis: true difference in means is not equal to 0  
## 95 percent confidence interval:  
## -0.01651548 0.16264375  
## sample estimates:  
## mean in group -1 mean in group 1  
## 2.744679 2.671615
```

```
t.test(PurAvg ~ gender, data = s2) #Purity
```

```
##  
## Welch Two Sample t-test  
##  
## data: PurAvg by gender  
## t = -2.9624, df = 1387.9, p-value = 0.003104  
## alternative hypothesis: true difference in means is not equal to 0  
## 95 percent confidence interval:  
## -0.26785676 -0.05443767  
## sample estimates:  
## mean in group -1 mean in group 1  
## 2.263271 2.424418
```

```
t.test(politri ~ gender, data = s2) #Politics
```

```
##  
## Welch Two Sample t-test  
##  
## data: politri by gender  
## t = 6.6992, df = 1534.3, p-value = 2.934e-11  
## alternative hypothesis: true difference in means is not equal to 0  
## 95 percent confidence interval:  
## 0.1749308 0.3197826  
## sample estimates:  
## mean in group -1 mean in group 1  
## -0.1569620 -0.4043187
```

ANCOVA foundation averages by politics with gender

Note: Conducted as 5 different analyses of covariances with politics as main and gender as covariate

```
ANCOVA HarmAvg RecAvg InAvg HyAvg PurAvg  BY politics  WITH gender
/METHOD = SSTYPE(3)
/INTERCEPT = INCLUDE
/CRITERIA = ALPHA(.05)
/DESIGN = gender politics.
```

```
summary(aov(HarmAvg ~ politics * gender, data = s2)) #Harm
```

```
##                Df Sum Sq Mean Sq F value Pr(>F)
## politics         1   99.1   99.07 148.047 <2e-16 ***
## gender           1   78.2   78.20 116.865 <2e-16 ***
## politics:gender   1    0.9    0.91   1.363  0.243
## Residuals       1754 1173.7    0.67
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 377 observations deleted due to missingness
```

```
summary(aov(RecAvg ~ politics * gender, data = s2)) #Fairness
```

```
##                Df Sum Sq Mean Sq F value    Pr(>F)
## politics         1  172.2  172.15 286.038 < 2e-16 ***
## gender           1   13.2   13.17  21.888 3.11e-06 ***
## politics:gender   1    0.0    0.01   0.011   0.916
## Residuals       1747 1051.4    0.60
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 384 observations deleted due to missingness
```

```
summary(aov(InAvg ~ politics * gender, data = s2)) #Ingroup
```

```
##                Df Sum Sq Mean Sq F value    Pr(>F)
## politics         1   33.5   33.47  42.174 1.09e-10 ***
## gender           1    0.7    0.74   0.933   0.334
## politics:gender   1    0.0    0.01   0.015   0.903
## Residuals       1748 1387.2    0.79
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 383 observations deleted due to missingness
```

```
summary(aov(HyAvg ~ politics * gender, data = s2)) #Authority
```

```
##                Df Sum Sq Mean Sq F value Pr(>F)
## politics         1  238.9  238.88 346.359 <2e-16 ***
```

```
## gender          1    0.8    0.84    1.214    0.271
## politics:gender  1    0.1    0.05    0.077    0.781
## Residuals      1748 1205.6    0.69
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 383 observations deleted due to missingness
```

```
summary(aov(PurAvg ~ politics * gender, data = s2)) #Purity
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## politics      1  358.3    358.3 361.138 < 2e-16 ***
## gender        1   39.6     39.6  39.876 3.42e-10 ***
## politics:gender 1    1.5      1.5   1.517   0.218
## Residuals    1749 1735.1      1.0
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 382 observations deleted due to missingness
```