Analysis using Multiple Imputation (scmfcs)

2023-03-29

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To do:

* add CIs to simple slope comparison tables?
  + should CIs or effect sizes be added?
* how to test H3?
* logistic analysis
  + simple effects?
  + marginal means/descriptives?

# Data Import & Cleaning

## Import data

raw\_psych\_hum\_subj <- import("data/raw/raw\_psych\_hum\_subj.csv")  
raw\_mktg\_hum\_subj <- import("data/raw/raw\_mktg\_hum\_subj.csv")  
raw\_gen\_uo\_pop <- import("data/raw/raw\_gen\_uo\_pop.csv")  
pre\_fall22 <- import("data/prescreen/dittersdorf\_matches\_f22.csv")  
pre\_winter23 <- import("data/prescreen/dittersdorf\_matches\_w23.csv")  
pre\_spring23 <- import("data/prescreen/dittersdorf\_matches\_s23.csv")  
participant\_list <- import("data/prescreen/dittersdorf\_participants.csv")

Fix age before converting variable types

table(raw\_psych\_hum\_subj$Age) # 18 years old = 18

##   
## 18 18 years old 19 20 21   
## 117 220 1 297 120 76   
## 22 23 24 25 27 28   
## 41 4 3 2 1 1   
## 29 30 31 32 33 50   
## 1 1 1 1 1 1

table(raw\_mktg\_hum\_subj$Age) # 1999 = 24

##   
## 18 19 1999 20 21 22 23 24 25 28 test   
## 11 4 13 1 50 119 66 7 9 3 1 3

table(raw\_gen\_uo\_pop$Age)

##   
## 18 20 21 22 28   
## 2 1 2 1 1

raw\_psych\_hum\_subj$Age[raw\_psych\_hum\_subj$Age == "18 years old"] <- 18  
raw\_mktg\_hum\_subj$Age[raw\_mktg\_hum\_subj$Age == 1999] <- 24  
  
table(raw\_psych\_hum\_subj$Age) # 18 years old = 18

##   
## 18 19 20 21 22 23 24 25 27 28 29 30 31 32 33 50   
## 117 221 297 120 76 41 4 3 2 1 1 1 1 1 1 1 1

table(raw\_mktg\_hum\_subj$Age) # 1999 = 24

##   
## 18 19 20 21 22 23 24 25 28 test   
## 11 4 13 50 119 66 7 10 3 1 3

## Combine dataframes

raw\_psych\_hum\_subj <- raw\_psych\_hum\_subj %>%  
 mutate(Age = as.integer(Age),  
 Gender = as.factor(Gender),  
 framing\_condition\_DO = as.factor(framing\_condition\_DO),  
 norm\_condition\_DO = as.factor(norm\_condition\_DO),  
 consumer\_behaviors = as.factor(consumer\_behaviors),  
 skepticism = as.factor(skepticism),  
 id = as.factor(id),  
 source = strrep("psych\_hsp", times = 1))  
  
levels(raw\_psych\_hum\_subj$framing\_condition\_DO)

## [1] "" "control\_framing" "pro\_env\_framing" "self\_enh\_framing"

raw\_mktg\_hum\_subj <- raw\_mktg\_hum\_subj %>%  
 mutate(Age = as.integer(Age),  
 Gender = as.factor(Gender),  
 Gender\_5\_TEXT = as.character(Gender\_5\_TEXT),  
 Class\_Lvl\_7\_TEXT = as.character(Class\_Lvl\_7\_TEXT),  
 Pol\_Ornt\_8\_TEXT = as.character(Pol\_Ornt\_8\_TEXT),  
 Ethnicity\_8\_TEXT = as.character(Ethnicity\_8\_TEXT),  
 skept\_open = as.character(skept\_open),  
 skepticism = as.factor(skepticism),  
 id = as.factor(id),  
 framing\_condition\_DO = as.factor(framing\_condition\_DO),  
 norm\_condition\_DO = as.factor(norm\_condition\_DO),  
 consumer\_behaviors = as.factor(consumer\_behaviors),  
 source = strrep("mktg\_hsp", times = 1))  
  
raw\_gen\_uo\_pop <- raw\_gen\_uo\_pop %>%  
 mutate(Gender = as.factor(Gender),  
 Gender\_5\_TEXT = as.character(Gender\_5\_TEXT),  
 Class\_Lvl\_7\_TEXT = as.character(Class\_Lvl\_7\_TEXT),  
 Pol\_Ornt\_8\_TEXT = as.character(Pol\_Ornt\_8\_TEXT),  
 skept\_open = as.character(skept\_open),  
 skepticism = as.factor(skepticism),  
 id = as.factor(id),  
 framing\_condition\_DO = as.factor(framing\_condition\_DO),  
 norm\_condition\_DO = as.factor(norm\_condition\_DO),  
 consumer\_behaviors = as.factor(consumer\_behaviors),  
 source = strrep("gen\_UO", times = 1))

Specify unique variables to combine prescreen data sets

# Create unique full\_name variable  
pre\_fall22$full\_name <- paste(pre\_fall22$first\_name, pre\_fall22$last\_name, sep="\_")  
  
pre\_winter23$full\_name <- paste(pre\_winter23$first\_name, pre\_winter23$last\_name, sep="\_")  
  
pre\_spring23$full\_name <- paste(pre\_spring23$first\_name, pre\_spring23$last\_name, sep="\_")  
  
participant\_list$full\_name <- paste(participant\_list$first\_name, participant\_list$last\_name, sep="\_")  
  
# Create column indicating which data set rows came from  
  
pre\_fall22 <- pre\_fall22 %>%  
 mutate(term = "fall22")  
  
pre\_winter23 <- pre\_winter23 %>%  
 mutate(term = "winter23")  
  
pre\_spring23 <- pre\_spring23 %>%  
 mutate(term = "spring23")

Combine prescreen data

combine1 <- smartbind(pre\_fall22, pre\_winter23)  
combined\_prescreen <- smartbind(combine1, pre\_spring23)  
  
# nrow(pre\_fall22) + nrow(pre\_winter23) + nrow(pre\_spring23) # n = 1167  
  
combined\_prescreen\_unique <- combined\_prescreen[!duplicated(combined\_prescreen$full\_name), ] # keeps first row (fall22)

Subset key variables

combined\_prescreen\_key <- combined\_prescreen\_unique %>%  
 dplyr::select(full\_name, term, respecting:gratification, honest:gossip)  
  
participant\_list\_key <- participant\_list %>%  
 dplyr::select(full\_name, survey\_id)

Merge with participant list

merged\_prescreen <- merge(combined\_prescreen\_key, participant\_list\_key, by = "full\_name")

Rename SDR items to match

Convert variable types

merged\_prescreen <- merged\_prescreen %>%  
 mutate(respecting = as.integer(respecting),  
 unity = as.integer(unity),  
 protecting = as.integer(protecting),  
 preventing = as.integer(preventing),  
 equality = as.integer(equality),  
 peace = as.integer(peace),  
 justice = as.integer(justice),  
 helpful = as.integer(helpful),  
 power = as.integer(power),  
 wealth = as.integer(wealth),  
 authority = as.integer(authority),  
 influential = as.integer(influential),  
 ambition = as.integer(ambition),  
 pleasures = as.integer(pleasures),  
 enjoying = as.integer(enjoying),  
 gratification = as.integer(gratification),  
 honest = as.integer(honest),  
 like = as.integer(like),  
 disturbing = as.integer(disturbing),  
 regret = as.integer(regret),  
 lose\_out = as.integer(lose\_out),  
 rational = as.integer(rational),  
 confident = as.integer(confident),  
 lover = as.integer(lover),  
 lies = as.integer(lies),  
 cover\_up = as.integer(cover\_up),  
 advantage = as.integer(advantage),  
 get\_even = as.integer(get\_even),  
 behind\_back = as.integer(behind\_back),  
 private\_talk = as.integer(private\_talk),  
 take\_things = as.integer(take\_things),  
 gossip = as.integer(gossip),  
 id = as.factor(id))

Rename values & socially desirable items in prescreen data to match names in main data:

Combine all data

* First, combine Psych Hum Subj data with Prescreen data based on id
* Second, add Mktg Hum Subj data
* Third, add gen UO Pop data

combine1 <- merge(raw\_psych\_hum\_subj, merged\_prescreen, by = "id")  
combine2 <- smartbind(combine1, raw\_mktg\_hum\_subj)  
combine3 <- smartbind(combine2, raw\_gen\_uo\_pop)

## Remove duplicate cases

Identify duplicate cases

# first, add unique row #s  
combine3 <- combine3 %>%  
 mutate(row = 1:nrow(combine3))  
  
combine3[duplicated(combine3$id),] # Only rows 1 through 858 have unique id #s  
  
# write.csv(combine3, "combined\_data.csv")

Row IDs to remove:

* 13 (participant’s second time completing study)
* 134 (participant didn’t complete study first time)
* 145 (participant didn’t complete study first time)
* 308 (participant’s second time completing study)
* 672 (participant’s second time completing study)
* 743 (participant didn’t complete study first time)
* 790 (participant didn’t complete study first time)
* 800 (participant didn’t complete study first time)

Remove duplicate rows after resolving:

combine3 <- combine3 %>%  
 filter(!row %in% c(13, 134, 145, 308, 672, 743, 790, 800))

## Remove rows of all NAs

Identify completely missing rows:

key\_vars <- combine3 %>%  
 dplyr::select(row, big\_2\_1:big\_2\_65, consumer\_intentions\_1:consumer\_intentions\_9, consumer\_behaviors, clothing\_interest\_1:clothing\_interest\_20, ingroup\_ident\_1:ingroup\_ident\_14, values\_1:values\_16, socially\_desirable\_1:socially\_desirable\_16, source)  
  
ncol(key\_vars) # number of columns - the row # & source column = 141  
  
all\_NA\_rows <- key\_vars[rowSums(is.na(key\_vars)) == 141,] # identify rows with 141 NAs (all missing values), row numbers are preserved  
  
all\_NA\_rows

Removing rows of fully missing data

data <- combine3 %>%  
 dplyr::filter(!row %in% c(859, 860, 900, 926, 927, 941, 1139, 1141, 1142, 1143, 1144, 1146, 1149, 1150, 1152)) %>% # remove rows containing all NAs  
 dplyr::select(-StartDate, -EndDate, -Status, -Progress, -"Duration (in seconds)", -Finished, -RecordedDate, -ResponseId, -DistributionChannel, -UserLanguage, -big\_2\_DO, -consumer\_intentions\_DO, -consumer\_behaviors\_DO, -clothing\_interest\_DO, -ingroup\_ident\_DO, -full\_name, -code, -socially\_desirable\_DO, -values\_DO, -email\_giftcard, -term) # removing variables not in analysis

## Number per source

table(data$source)

##   
## gen\_UO mktg\_hsp psych\_hsp   
## 7 276 850

* 850 = psych human subjects pool
* 276 = mktg human subjects pool
* 7 = general UO pop

Rename variables

data <- data %>%  
 rename("framing\_condition" = "framing\_condition\_DO",   
 "norm\_condition" = "norm\_condition\_DO")

Drop unused levels

Re-order levels of norm condition

data$norm\_condition <- factor(data$norm\_condition, levels = c("control\_norm", "descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"))

## Inspect final data

str(data, list.len = ncol(data))  
  
# write.csv(data, "final\_data.csv")

# Aggregate Variables

## Personality

### Reverse-code

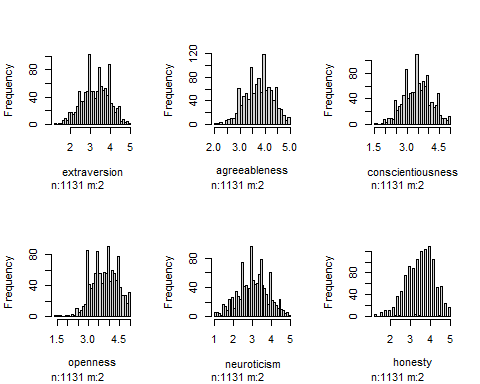
data\_R <- data %>%  
 mutate(across(c(big\_2\_11,  
 big\_2\_16,  
 big\_2\_26,  
 big\_2\_31,  
 big\_2\_36,  
 big\_2\_51,  
 big\_2\_12,  
 big\_2\_17,  
 big\_2\_22,  
 big\_2\_37,  
 big\_2\_42,  
 big\_2\_47,  
 big\_2\_3,  
 big\_2\_8,  
 big\_2\_23,  
 big\_2\_28,  
 big\_2\_48,  
 big\_2\_58,  
 big\_2\_4,  
 big\_2\_9,  
 big\_2\_24,  
 big\_2\_29,  
 big\_2\_44,  
 big\_2\_49,  
 big\_2\_5,  
 big\_2\_25,  
 big\_2\_30,  
 big\_2\_45,  
 big\_2\_50,  
 big\_2\_55,  
 big\_2\_63), ~6 - .)) # replace '6' with the max possible value plus 1 for any particular scale

### Average items

data\_R$extraversion <- data\_R %>%  
 dplyr::select(big\_2\_1, big\_2\_6, big\_2\_11, big\_2\_16, big\_2\_21, big\_2\_26, big\_2\_31, big\_2\_36, big\_2\_41, big\_2\_46, big\_2\_51, big\_2\_56) %>%  
 rowMeans(na.rm = TRUE)   
  
  
data\_R$conscientiousness <- data\_R %>%  
 dplyr::select(big\_2\_3, big\_2\_8, big\_2\_13, big\_2\_18, big\_2\_23, big\_2\_28, big\_2\_33, big\_2\_38, big\_2\_43, big\_2\_48, big\_2\_53, big\_2\_58) %>%  
 rowMeans(na.rm = TRUE)  
  
  
data\_R$agreeableness <- data\_R %>%  
 dplyr::select(big\_2\_2, big\_2\_7, big\_2\_12, big\_2\_17, big\_2\_22, big\_2\_27, big\_2\_32, big\_2\_37, big\_2\_42, big\_2\_47, big\_2\_52, big\_2\_57) %>%  
 rowMeans(na.rm = TRUE)  
  
  
data\_R$neuroticism <- data\_R %>%  
 dplyr::select(big\_2\_4, big\_2\_9, big\_2\_14, big\_2\_19, big\_2\_24, big\_2\_29, big\_2\_34, big\_2\_39, big\_2\_44, big\_2\_49, big\_2\_54, big\_2\_59) %>%  
 rowMeans(na.rm = TRUE)  
  
  
data\_R$openness <- data\_R %>%  
 dplyr::select(big\_2\_5, big\_2\_10, big\_2\_15, big\_2\_20, big\_2\_25, big\_2\_30, big\_2\_35, big\_2\_40, big\_2\_45, big\_2\_50, big\_2\_55, big\_2\_60) %>%  
 rowMeans(na.rm = TRUE)  
  
  
data\_R$honesty <- data\_R %>%  
 dplyr::select(big\_2\_61, big\_2\_62, big\_2\_63, big\_2\_64, big\_2\_65) %>%  
 rowMeans(na.rm = TRUE)

### Visually inspect

data\_R %>%  
 dplyr::select(extraversion, agreeableness, conscientiousness, openness, neuroticism, honesty) %>%  
 hist()



## Clothing Interest

### Reverse-code

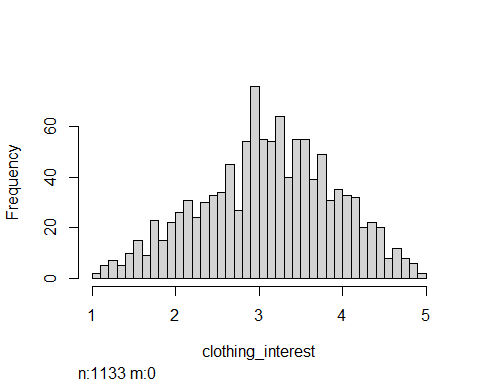
data\_R <- data\_R %>%  
 mutate(across(c(clothing\_interest\_3,  
 clothing\_interest\_5,  
 clothing\_interest\_7,  
 clothing\_interest\_9,  
 clothing\_interest\_12,  
 clothing\_interest\_14,  
 clothing\_interest\_15,  
 clothing\_interest\_16,  
 clothing\_interest\_18,  
 clothing\_interest\_20), ~6 - .)) # replace '#' with the max possible value plus 1 for any particular scale

### Average items

data\_R$clothing\_interest <- data\_R %>%  
 dplyr::select(clothing\_interest\_1:clothing\_interest\_20) %>%  
 rowMeans(na.rm = TRUE)

### Visually Inspect

data\_R %>%  
 dplyr::select(clothing\_interest) %>%  
 hist()



## In-group Identification

### Reverse-code

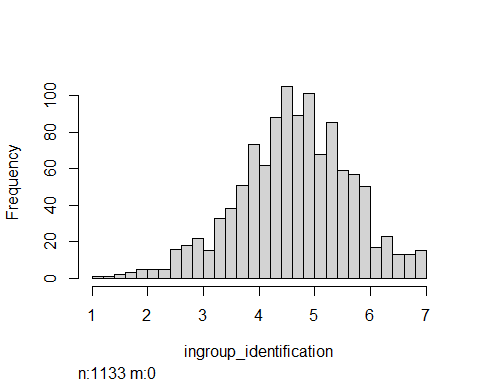
No items need to be reverse-coded.

### Average items

data\_R$ingroup\_identification <- data\_R %>%  
 dplyr::select(ingroup\_ident\_1:ingroup\_ident\_14) %>%  
 rowMeans(na.rm = TRUE)

### Visually Inspect

data\_R %>%  
 dplyr::select(ingroup\_identification) %>%  
 hist()



## Values

### Reverse-code

No items need to be reverse-coded.

### Recoding scale options

Recoding values:

* -3 = 1
* -2 = 2
* -1 = 3
* 0 = 4
* +1 = 5
* +2 = 6
* +3 = 7

table(data\_R$values\_1)

##   
## -3 -2 -1 0 1 2 3   
## 5 10 17 40 176 362 508

data\_R$values\_1\_rec <- dplyr::recode(data\_R$values\_1, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
  
table(data\_R$values\_1\_rec)

##   
## 1 2 3 4 5 6 7   
## 5 10 17 40 176 362 508

data\_R$values\_2\_rec <- dplyr::recode(data\_R$values\_2, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_3\_rec <- dplyr::recode(data\_R$values\_3, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_4\_rec <- dplyr::recode(data\_R$values\_4, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_5\_rec <- dplyr::recode(data\_R$values\_5, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_6\_rec <- dplyr::recode(data\_R$values\_6, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_7\_rec <- dplyr::recode(data\_R$values\_7, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_8\_rec <- dplyr::recode(data\_R$values\_8, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_9\_rec <- dplyr::recode(data\_R$values\_9, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_10\_rec <- dplyr::recode(data\_R$values\_10, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_11\_rec <- dplyr::recode(data\_R$values\_11, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_12\_rec <- dplyr::recode(data\_R$values\_12, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_13\_rec <- dplyr::recode(data\_R$values\_13, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_14\_rec <- dplyr::recode(data\_R$values\_14, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_15\_rec <- dplyr::recode(data\_R$values\_15, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
data\_R$values\_16\_rec <- dplyr::recode(data\_R$values\_16, `-3` = 1, `-2` = 2, `-1` = 3, `0` = 4, `1` = 5, `2` = 6, `3` = 7)  
  
table(data\_R$values\_16)

##   
## -3 -2 -1 0 1 2 3   
## 4 11 29 116 250 394 312

table(data\_R$values\_16\_rec)

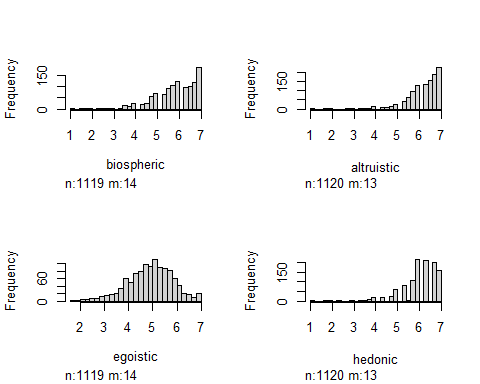
##   
## 1 2 3 4 5 6 7   
## 4 11 29 116 250 394 312

### Average items

data\_R$biospheric <- data\_R %>%  
 dplyr::select(values\_1\_rec:values\_4\_rec) %>%  
 rowMeans(na.rm = TRUE)  
  
data\_R$altruistic <- data\_R %>%  
 dplyr::select(values\_5\_rec:values\_8\_rec) %>%  
 rowMeans(na.rm = TRUE)  
  
data\_R$egoistic <- data\_R %>%  
 dplyr::select(values\_9\_rec:values\_13\_rec) %>%  
 rowMeans(na.rm = TRUE)  
  
data\_R$hedonic <- data\_R %>%  
 dplyr::select(values\_14\_rec:values\_16\_rec) %>%  
 rowMeans(na.rm = TRUE)

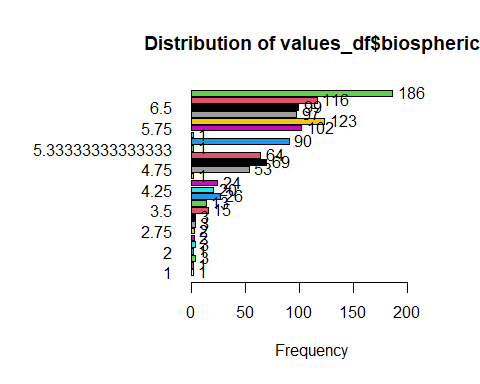
### Visually inspect

values\_df <- data\_R %>%  
 dplyr::select(biospheric, altruistic, egoistic, hedonic)  
  
values\_df %>%  
 hist()



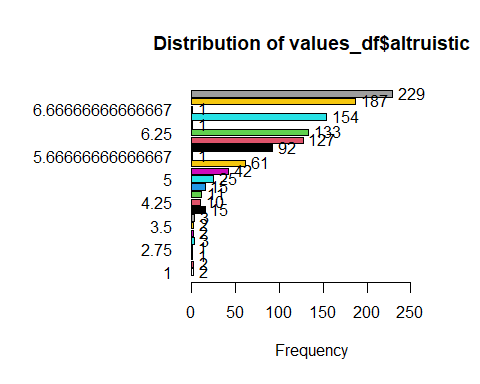
### Frequency tables

# Biospheric values  
tab1(values\_df$biospheric, sort.group = "descending", cum.percent = TRUE, missing = FALSE, horiz = TRUE)



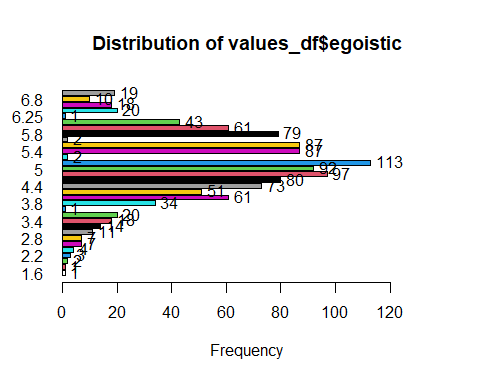
## values\_df$biospheric :   
## Frequency %(NA+) cum.%(NA+) %(NA-) cum.%(NA-)  
## 1 1 0.1 0.1 0.1 0.1  
## 1.5 1 0.1 0.2 0.1 0.2  
## 1.75 3 0.3 0.4 0.3 0.4  
## 2 1 0.1 0.5 0.1 0.5  
## 2.25 3 0.3 0.8 0.3 0.8  
## 2.5 2 0.2 1.0 0.2 1.0  
## 2.75 2 0.2 1.1 0.2 1.2  
## 3 3 0.3 1.4 0.3 1.4  
## 3.25 3 0.3 1.7 0.3 1.7  
## 3.5 15 1.3 3.0 1.3 3.0  
## 3.75 13 1.1 4.1 1.2 4.2  
## 4 26 2.3 6.4 2.3 6.5  
## 4.25 20 1.8 8.2 1.8 8.3  
## 4.5 24 2.1 10.3 2.1 10.5  
## 4.66666666666667 1 0.1 10.4 0.1 10.5  
## 4.75 53 4.7 15.1 4.7 15.3  
## 5 69 6.1 21.2 6.2 21.4  
## 5.25 64 5.6 26.8 5.7 27.2  
## 5.33333333333333 1 0.1 26.9 0.1 27.3  
## 5.5 90 7.9 34.9 8.0 35.3  
## 5.66666666666667 1 0.1 35.0 0.1 35.4  
## 5.75 102 9.0 44.0 9.1 44.5  
## 6 123 10.9 54.8 11.0 55.5  
## 6.25 97 8.6 63.4 8.7 64.2  
## 6.5 99 8.7 72.1 8.8 73.0  
## 6.75 116 10.2 82.3 10.4 83.4  
## 7 186 16.4 98.8 16.6 100.0  
## NaN 14 1.2 100.0 0.0 100.0  
## Total 1133 100.0 100.0 100.0 100.0

# Altruistic values  
tab1(values\_df$altruistic, sort.group = "descending", cum.percent = TRUE, missing = FALSE, horiz = TRUE)



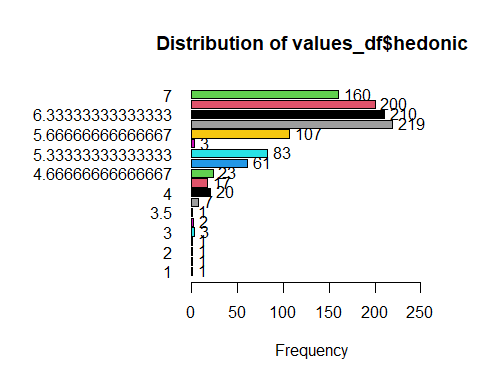
## values\_df$altruistic :   
## Frequency %(NA+) cum.%(NA+) %(NA-) cum.%(NA-)  
## 1 2 0.2 0.2 0.2 0.2  
## 1.75 2 0.2 0.4 0.2 0.4  
## 2 1 0.1 0.4 0.1 0.4  
## 2.75 1 0.1 0.5 0.1 0.5  
## 3 3 0.3 0.8 0.3 0.8  
## 3.25 2 0.2 1.0 0.2 1.0  
## 3.5 2 0.2 1.1 0.2 1.2  
## 3.75 3 0.3 1.4 0.3 1.4  
## 4 15 1.3 2.7 1.3 2.8  
## 4.25 10 0.9 3.6 0.9 3.7  
## 4.5 11 1.0 4.6 1.0 4.6  
## 4.75 15 1.3 5.9 1.3 6.0  
## 5 25 2.2 8.1 2.2 8.2  
## 5.25 42 3.7 11.8 3.8 12.0  
## 5.5 61 5.4 17.2 5.4 17.4  
## 5.66666666666667 1 0.1 17.3 0.1 17.5  
## 5.75 92 8.1 25.4 8.2 25.7  
## 6 127 11.2 36.6 11.3 37.1  
## 6.25 133 11.7 48.4 11.9 48.9  
## 6.33333333333333 1 0.1 48.5 0.1 49.0  
## 6.5 154 13.6 62.0 13.8 62.8  
## 6.66666666666667 1 0.1 62.1 0.1 62.9  
## 6.75 187 16.5 78.6 16.7 79.6  
## 7 229 20.2 98.9 20.4 100.0  
## NaN 13 1.1 100.0 0.0 100.0  
## Total 1133 100.0 100.0 100.0 100.0

# Egoistic values  
tab1(values\_df$egoistic, sort.group = "descending", cum.percent = TRUE, missing = FALSE, horiz = TRUE)



## values\_df$egoistic :   
## Frequency %(NA+) cum.%(NA+) %(NA-) cum.%(NA-)  
## 1.6 1 0.1 0.1 0.1 0.1  
## 1.8 1 0.1 0.2 0.1 0.2  
## 2 2 0.2 0.4 0.2 0.4  
## 2.2 3 0.3 0.6 0.3 0.6  
## 2.4 4 0.4 1.0 0.4 1.0  
## 2.6 7 0.6 1.6 0.6 1.6  
## 2.8 7 0.6 2.2 0.6 2.2  
## 3 11 1.0 3.2 1.0 3.2  
## 3.2 14 1.2 4.4 1.3 4.5  
## 3.4 18 1.6 6.0 1.6 6.1  
## 3.6 20 1.8 7.8 1.8 7.9  
## 3.75 1 0.1 7.9 0.1 8.0  
## 3.8 34 3.0 10.9 3.0 11.0  
## 4 61 5.4 16.2 5.5 16.4  
## 4.2 51 4.5 20.7 4.6 21.0  
## 4.4 73 6.4 27.2 6.5 27.5  
## 4.6 80 7.1 34.2 7.1 34.7  
## 4.8 97 8.6 42.8 8.7 43.3  
## 5 92 8.1 50.9 8.2 51.6  
## 5.2 113 10.0 60.9 10.1 61.7  
## 5.25 2 0.2 61.1 0.2 61.8  
## 5.4 87 7.7 68.8 7.8 69.6  
## 5.6 87 7.7 76.4 7.8 77.4  
## 5.75 2 0.2 76.6 0.2 77.6  
## 5.8 79 7.0 83.6 7.1 84.6  
## 6 61 5.4 89.0 5.5 90.1  
## 6.2 43 3.8 92.8 3.8 93.9  
## 6.25 1 0.1 92.9 0.1 94.0  
## 6.4 20 1.8 94.6 1.8 95.8  
## 6.6 18 1.6 96.2 1.6 97.4  
## 6.8 10 0.9 97.1 0.9 98.3  
## 7 19 1.7 98.8 1.7 100.0  
## NaN 14 1.2 100.0 0.0 100.0  
## Total 1133 100.0 100.0 100.0 100.0

# Hedonic values  
tab1(values\_df$hedonic, sort.group = "descending", cum.percent = TRUE, missing = FALSE, horiz = TRUE)



## values\_df$hedonic :   
## Frequency %(NA+) cum.%(NA+) %(NA-) cum.%(NA-)  
## 1 1 0.1 0.1 0.1 0.1  
## 1.66666666666667 1 0.1 0.2 0.1 0.2  
## 2 1 0.1 0.3 0.1 0.3  
## 2.33333333333333 1 0.1 0.4 0.1 0.4  
## 3 3 0.3 0.6 0.3 0.6  
## 3.33333333333333 2 0.2 0.8 0.2 0.8  
## 3.5 1 0.1 0.9 0.1 0.9  
## 3.66666666666667 7 0.6 1.5 0.6 1.5  
## 4 20 1.8 3.3 1.8 3.3  
## 4.33333333333333 17 1.5 4.8 1.5 4.8  
## 4.66666666666667 23 2.0 6.8 2.1 6.9  
## 5 61 5.4 12.2 5.4 12.3  
## 5.33333333333333 83 7.3 19.5 7.4 19.7  
## 5.5 3 0.3 19.8 0.3 20.0  
## 5.66666666666667 107 9.4 29.2 9.6 29.6  
## 6 219 19.3 48.5 19.6 49.1  
## 6.33333333333333 210 18.5 67.1 18.8 67.9  
## 6.66666666666667 200 17.7 84.7 17.9 85.7  
## 7 160 14.1 98.9 14.3 100.0  
## NaN 13 1.1 100.0 0.0 100.0  
## Total 1133 100.0 100.0 100.0 100.0

## Socially Desirable Responding

### Reverse-code

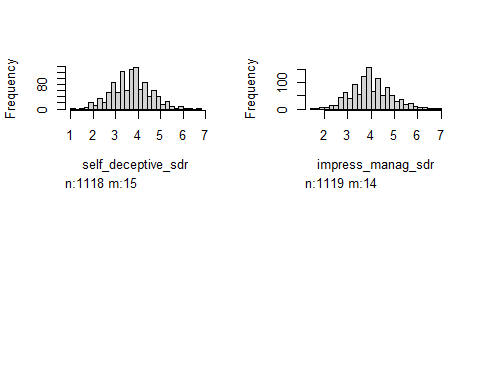
data\_R <- data\_R %>%  
 mutate(across(c(socially\_desirable\_1,  
 socially\_desirable\_3,  
 socially\_desirable\_5,  
 socially\_desirable\_8,  
 socially\_desirable\_9,  
 socially\_desirable\_11,  
 socially\_desirable\_12,  
 socially\_desirable\_13), ~8 - .)) # replace '#' with the max possible value plus 1 for any particular scale

### Average items

data\_R$self\_deceptive\_sdr <- data\_R %>%  
 dplyr::select(socially\_desirable\_1:socially\_desirable\_8) %>%  
 rowMeans(na.rm = TRUE)  
   
data\_R$impress\_manag\_sdr <- data\_R %>%  
 dplyr::select(socially\_desirable\_9:socially\_desirable\_16) %>%  
 rowMeans(na.rm = TRUE)

### Visually inspect

data\_R %>%  
 dplyr::select(self\_deceptive\_sdr, impress\_manag\_sdr) %>%  
 hist()



## Consumer Intentions

### Reverse-code

Higher scores mean better consumer intentions (intentions to *reduce* future consumption):

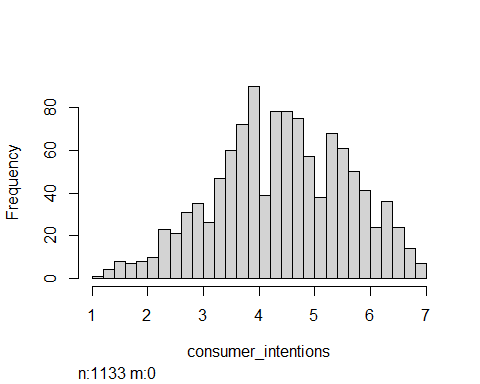
data\_R <- data\_R %>%  
 mutate(across(c(consumer\_intentions\_2,  
 consumer\_intentions\_4,  
 consumer\_intentions\_7,  
 consumer\_intentions\_9), ~8 - .)) # replace '#' with the max possible value plus 1 for any particular scale

### Average items

data\_R$consumer\_intentions <- data\_R %>%  
 dplyr::select(consumer\_intentions\_1:consumer\_intentions\_9) %>%  
 rowMeans(na.rm = TRUE)

### Visually inspect

data\_R %>%  
 dplyr::select(consumer\_intentions) %>%  
 hist()



# Contrast Coding

Subset variables

Contrast Coding using ifelse() approach:

# Framing  
data\_R\_alt$FramingCode1 <- ifelse(data\_R\_alt$framing\_condition == "control\_framing", -1/2, ifelse(data\_R\_alt$framing\_condition == "self\_enh\_framing", 1/2, 0))  
  
data\_R\_alt$FramingCode2 <- ifelse(data\_R\_alt$framing\_condition == "pro\_env\_framing", 2/3, -1/3)  
  
  
# Norm  
data\_R\_alt$NormCode1 <- ifelse(data\_R\_alt$norm\_condition == "moral\_norm", 4, -1)  
  
data\_R\_alt$NormCode2 <- ifelse(data\_R\_alt$norm\_condition == "social\_norm", 3, ifelse(data\_R\_alt$norm\_condition == "moral\_norm", 0, -1))  
  
data\_R\_alt$NormCode3 <- ifelse(data\_R\_alt$norm\_condition == "convention\_norm", 2, ifelse(data\_R\_alt$norm\_condition == "moral\_norm", 0, ifelse(data\_R\_alt$norm\_condition == "social\_norm", 0, -1)))  
data\_R\_alt$NormCode4 <- ifelse(data\_R\_alt$norm\_condition == "descriptive\_norm", 1, ifelse(data\_R\_alt$norm\_condition == "control\_norm", -1, 0))  
  
  
## Adding contrast codes to Framing & Norm Condition  
# Framing  
FrameCode1 <- c(-1/2, 0, 1/2) # control vs self-enhancing  
FrameCode2 <- c(-1/3, 2/3, -1/3) # arbitrary code  
  
contrasts(data\_R\_alt$framing\_condition) <- cbind(FrameCode1, FrameCode2)  
contrasts(data\_R\_alt$framing\_condition)

## FrameCode1 FrameCode2  
## control\_framing -0.5 -0.3333333  
## pro\_env\_framing 0.0 0.6666667  
## self\_enh\_framing 0.5 -0.3333333

# Norm  
contrasts(data\_R\_alt$norm\_condition) <- contr.helmert(5)  
contrasts(data\_R\_alt$norm\_condition) # control vs DN

## [,1] [,2] [,3] [,4]  
## control\_norm -1 -1 -1 -1  
## descriptive\_norm 1 -1 -1 -1  
## convention\_norm 0 2 -1 -1  
## social\_norm 0 0 3 -1  
## moral\_norm 0 0 0 4

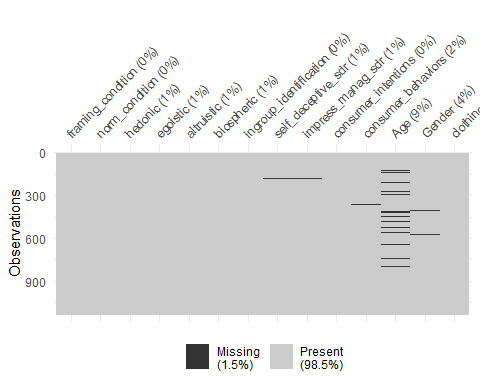
# Gender  
levels(data\_R\_alt$Gender) <- c("Woman", "Man", "Non-binary", "I prefer not to identify", "Other")  
  
data\_R\_alt$Gender[data\_R\_alt$Gender == "Non-binary"] <- NA  
data\_R\_alt$Gender[data\_R\_alt$Gender == "I prefer not to identify"] <- NA  
data\_R\_alt$Gender[data\_R\_alt$Gender == "Other"] <- NA  
  
data\_R\_alt$Gender <- droplevels(data\_R\_alt$Gender)  
  
  
contrasts(data\_R\_alt$Gender) <- c(1, 0)  
levels(data\_R\_alt$Gender)

## [1] "Woman" "Man"

# Multiple Imputation

## Examine Missingness

data\_R\_alt %>%  
 dplyr::select(framing\_condition, norm\_condition, hedonic, egoistic, altruistic, biospheric, ingroup\_identification, self\_deceptive\_sdr, impress\_manag\_sdr, consumer\_intentions, consumer\_behaviors, Age, Gender, clothing\_interest) %>%  
 vis\_miss()



n\_missing <- data\_R\_alt %>%  
 dplyr::select(framing\_condition, norm\_condition, hedonic, egoistic, altruistic, biospheric, ingroup\_identification, self\_deceptive\_sdr, impress\_manag\_sdr, consumer\_intentions, consumer\_behaviors, Age, Gender, clothing\_interest) %>%  
 lapply(function(x) sum(is.na(x)))  
  
n\_missing

## $framing\_condition  
## [1] 0  
##   
## $norm\_condition  
## [1] 0  
##   
## $hedonic  
## [1] 13  
##   
## $egoistic  
## [1] 14  
##   
## $altruistic  
## [1] 13  
##   
## $biospheric  
## [1] 14  
##   
## $ingroup\_identification  
## [1] 0  
##   
## $self\_deceptive\_sdr  
## [1] 15  
##   
## $impress\_manag\_sdr  
## [1] 14  
##   
## $consumer\_intentions  
## [1] 0  
##   
## $consumer\_behaviors  
## [1] 18  
##   
## $Age  
## [1] 103  
##   
## $Gender  
## [1] 41  
##   
## $clothing\_interest  
## [1] 0

# percent missing  
lapply(n\_missing, function(x) (x/nrow(data\_R\_alt))\*100)

## $framing\_condition  
## [1] 0  
##   
## $norm\_condition  
## [1] 0  
##   
## $hedonic  
## [1] 1.147396  
##   
## $egoistic  
## [1] 1.235658  
##   
## $altruistic  
## [1] 1.147396  
##   
## $biospheric  
## [1] 1.235658  
##   
## $ingroup\_identification  
## [1] 0  
##   
## $self\_deceptive\_sdr  
## [1] 1.323919  
##   
## $impress\_manag\_sdr  
## [1] 1.235658  
##   
## $consumer\_intentions  
## [1] 0  
##   
## $consumer\_behaviors  
## [1] 1.588703  
##   
## $Age  
## [1] 9.090909  
##   
## $Gender  
## [1] 3.618711  
##   
## $clothing\_interest  
## [1] 0

Variables with NO missing data:

* ingroup\_identification
* clothing\_interest
* consumer\_intentions
* framing\_condition
* norm\_condition

## Adding interaction terms

## Imputation model

set.seed(114950518)

* check out mice.impute.smcfcs

## [1] "Outcome variable(s): consumer\_intentions"  
## [1] "Passive variables: framing1Xbiospheric,framing2Xbiospheric,norm1Xbiospheric,norm2Xbiospheric,norm3Xbiospheric,norm4Xbiospheric,framing1Xnorm1Xbiospheric,framing1Xnorm2Xbiospheric,framing1Xnorm3Xbiospheric,framing1Xnorm4Xbiospheric,framing2Xnorm1Xbiospheric,framing2Xnorm2Xbiospheric,framing2Xnorm3Xbiospheric,framing2Xnorm4Xbiospheric,framing1Xaltruistic,framing2Xaltruistic,norm1Xaltruistic,norm2Xaltruistic,norm3Xaltruistic,norm4Xaltruistic,framing1Xnorm1Xaltruistic,framing1Xnorm2Xaltruistic,framing1Xnorm3Xaltruistic,framing1Xnorm4Xaltruistic,framing2Xnorm1Xaltruistic,framing2Xnorm2Xaltruistic,framing2Xnorm3Xaltruistic,framing2Xnorm4Xaltruistic,framing1Xegoistic,framing2Xegoistic,norm1Xegoistic,norm2Xegoistic,norm3Xegoistic,norm4Xegoistic,framing1Xnorm1Xegoistic,framing1Xnorm2Xegoistic,framing1Xnorm3Xegoistic,framing1Xnorm4Xegoistic,framing2Xnorm1Xegoistic,framing2Xnorm2Xegoistic,framing2Xnorm3Xegoistic,framing2Xnorm4Xegoistic,framing1Xhedonic,framing2Xhedonic,norm1Xhedonic,norm2Xhedonic,norm3Xhedonic,norm4Xhedonic,framing1Xnorm1Xhedonic,framing1Xnorm2Xhedonic,framing1Xnorm3Xhedonic,framing1Xnorm4Xhedonic,framing2Xnorm1Xhedonic,framing2Xnorm2Xhedonic,framing2Xnorm3Xhedonic,framing2Xnorm4Xhedonic"  
## [1] "Partially obs. variables: hedonic,egoistic,altruistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender"  
## [1] "Fully obs. substantive model variables: ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup"  
## [1] "Imputation 1"  
## [1] "Imputing: hedonic using egoistic,altruistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: egoistic using hedonic,altruistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: altruistic using hedonic,egoistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: biospheric using hedonic,egoistic,altruistic,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: Age using hedonic,egoistic,altruistic,biospheric,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: self\_deceptive\_sdr using hedonic,egoistic,altruistic,biospheric,Age,impress\_manag\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: impress\_manag\_sdr using hedonic,egoistic,altruistic,biospheric,Age,self\_deceptive\_sdr,consumer\_behaviors,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: consumer\_behaviors using hedonic,egoistic,altruistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,Gender,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputing: Gender using hedonic,egoistic,altruistic,biospheric,Age,self\_deceptive\_sdr,impress\_manag\_sdr,consumer\_behaviors,ingroup\_identification,clothing\_interest,framing\_condition,norm\_condition,framing1Xingroup,framing2Xingroup,norm1Xingroup,norm2Xingroup,norm3Xingroup,norm4Xingroup,framing1Xnorm1Xingroup,framing1Xnorm2Xingroup,framing1Xnorm3Xingroup,framing1Xnorm4Xingroup,framing2Xnorm1Xingroup,framing2Xnorm2Xingroup,framing2Xnorm3Xingroup,framing2Xnorm4Xingroup plus outcome"  
## [1] "Imputation 2"  
## [1] "Imputation 3"  
## [1] "Imputation 4"  
## [1] "Imputation 5"

Storing imputed data sets

Restrict range of values on imputed variables

# bio values  
impobject$imputations[[1]]$biospheric <- ifelse(impobject$imputations[[1]]$biospheric > 7, 7, impobject$imputations[[1]]$biospheric)  
  
impobject$imputations[[2]]$biospheric <- ifelse(impobject$imputations[[2]]$biospheric > 7, 7, impobject$imputations[[2]]$biospheric)  
  
impobject$imputations[[3]]$biospheric <- ifelse(impobject$imputations[[3]]$biospheric > 7, 7, impobject$imputations[[3]]$biospheric)  
  
impobject$imputations[[4]]$biospheric <- ifelse(impobject$imputations[[4]]$biospheric > 7, 7, impobject$imputations[[4]]$biospheric)  
  
impobject$imputations[[5]]$biospheric <- ifelse(impobject$imputations[[5]]$biospheric > 7, 7, impobject$imputations[[5]]$biospheric)  
  
  
# alt values  
impobject$imputations[[1]]$altruistic <- ifelse(impobject$imputations[[1]]$altruistic > 7, 7, impobject$imputations[[1]]$altruistic)  
  
impobject$imputations[[2]]$altruistic <- ifelse(impobject$imputations[[2]]$altruistic > 7, 7, impobject$imputations[[2]]$altruistic)  
  
impobject$imputations[[3]]$altruistic <- ifelse(impobject$imputations[[3]]$altruistic > 7, 7, impobject$imputations[[3]]$altruistic)  
  
impobject$imputations[[4]]$altruistic <- ifelse(impobject$imputations[[4]]$altruistic > 7, 7, impobject$imputations[[4]]$altruistic)  
  
impobject$imputations[[5]]$altruistic <- ifelse(impobject$imputations[[5]]$altruistic > 7, 7, impobject$imputations[[5]]$altruistic)  
  
  
# ego values  
impobject$imputations[[1]]$egoistic <- ifelse(impobject$imputations[[1]]$egoistic > 7, 7, impobject$imputations[[1]]$egoistic)  
  
impobject$imputations[[2]]$egoistic <- ifelse(impobject$imputations[[2]]$egoistic > 7, 7, impobject$imputations[[2]]$egoistic)  
  
impobject$imputations[[3]]$egoistic <- ifelse(impobject$imputations[[3]]$egoistic > 7, 7, impobject$imputations[[3]]$egoistic)  
  
impobject$imputations[[4]]$egoistic <- ifelse(impobject$imputations[[4]]$egoistic > 7, 7, impobject$imputations[[4]]$egoistic)  
  
impobject$imputations[[5]]$egoistic <- ifelse(impobject$imputations[[5]]$egoistic > 7, 7, impobject$imputations[[5]]$egoistic)  
  
  
# hed values  
impobject$imputations[[1]]$hedonic <- ifelse(impobject$imputations[[1]]$hedonic > 7, 7, impobject$imputations[[1]]$hedonic)  
  
impobject$imputations[[2]]$hedonic <- ifelse(impobject$imputations[[2]]$hedonic > 7, 7, impobject$imputations[[2]]$hedonic)  
  
impobject$imputations[[3]]$hedonic <- ifelse(impobject$imputations[[3]]$hedonic > 7, 7, impobject$imputations[[3]]$hedonic)  
  
impobject$imputations[[4]]$hedonic <- ifelse(impobject$imputations[[4]]$hedonic > 7, 7, impobject$imputations[[4]]$hedonic)  
  
impobject$imputations[[5]]$hedonic <- ifelse(impobject$imputations[[5]]$hedonic > 7, 7, impobject$imputations[[5]]$hedonic)  
  
  
# self-deceptive enhancement  
with(impobject, describe(self\_deceptive\_sdr))

## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.14 0.14 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.86 3.75 3.71 0.74 1 6.62 5.62 0.15 0.13 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.16 0.18 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 0.89 6.62 5.73 0.11 0.19 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.86 3.75 3.71 0.74 1 6.62 5.62 0.15 0.15 0.03  
##   
## attr(,"call")  
## with(impobject, describe(self\_deceptive\_sdr))

impobject$imputations[[4]]$self\_deceptive\_sdr <- ifelse(impobject$imputations[[4]]$self\_deceptive\_sdr < 1, 1, impobject$imputations[[4]]$self\_deceptive\_sdr)  
  
  
# impr manag  
with(impobject, describe(impress\_manag\_sdr))

## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.99 0.74 1.5 7 5.5 0.26 0.15 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.98 0.74 1.5 7 5.5 0.26 0.16 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.99 0.74 1.5 7 5.5 0.25 0.15 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4 0.85 4 3.98 0.74 1.5 7 5.5 0.24 0.15 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4 0.85 4 3.98 0.74 1.5 7 5.5 0.26 0.17 0.03  
##   
## attr(,"call")  
## with(impobject, describe(impress\_manag\_sdr))

# Age  
describe(data\_R\_alt$Age)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1030 19.87 1.95 19 19.67 1.48 18 50 32 4.91 59.29 0.06

with(impobject, describe(Age))

## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.88 1.95 19.18 19.69 1.76 15.42 50 34.58 4.51 54.36 0.06  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.85 1.96 19 19.67 1.48 14.79 50 35.21 4.39 53.26 0.06  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.88 1.96 19.29 19.69 1.92 15.83 50 34.17 4.42 52.66 0.06  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.87 1.95 19 19.68 1.48 15.63 50 34.37 4.51 54.13 0.06  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.87 1.95 19.14 19.69 1.69 14.17 50 35.83 4.48 54.54 0.06  
##   
## attr(,"call")  
## with(impobject, describe(Age))

impobject$imputations[[1]]$Age <- ifelse(impobject$imputations[[1]]$Age < 18, 18, impobject$imputations[[1]]$Age)  
  
impobject$imputations[[2]]$Age <- ifelse(impobject$imputations[[2]]$Age < 18, 18, impobject$imputations[[2]]$Age)  
  
impobject$imputations[[3]]$Age <- ifelse(impobject$imputations[[3]]$Age < 18, 18, impobject$imputations[[3]]$Age)  
  
impobject$imputations[[4]]$Age <- ifelse(impobject$imputations[[4]]$Age < 18, 18, impobject$imputations[[4]]$Age)  
  
impobject$imputations[[5]]$Age <- ifelse(impobject$imputations[[5]]$Age < 18, 18, impobject$imputations[[5]]$Age)

## Centering continuous predictors

Convert scmfcs object to a mids object (to make the object compatible with mice, and thus, emmeans):

mids\_obj <- datlist2mids(impobject)

Complete data set:

# Descriptive Statistics

n per Condition

data\_R\_alt %>%  
 group\_by(framing\_condition, norm\_condition) %>%  
 summarise(n = n()) %>%   
 knitr::kable(digits = 2)

| framing\_condition | norm\_condition | n |
| --- | --- | --- |
| control\_framing | control\_norm | 79 |
| control\_framing | descriptive\_norm | 71 |
| control\_framing | convention\_norm | 66 |
| control\_framing | social\_norm | 91 |
| control\_framing | moral\_norm | 68 |
| pro\_env\_framing | control\_norm | 73 |
| pro\_env\_framing | descriptive\_norm | 76 |
| pro\_env\_framing | convention\_norm | 85 |
| pro\_env\_framing | social\_norm | 67 |
| pro\_env\_framing | moral\_norm | 80 |
| self\_enh\_framing | control\_norm | 79 |
| self\_enh\_framing | descriptive\_norm | 80 |
| self\_enh\_framing | convention\_norm | 77 |
| self\_enh\_framing | social\_norm | 64 |
| self\_enh\_framing | moral\_norm | 77 |

data\_R\_alt %>%  
 group\_by(norm\_condition) %>%  
 summarise(n = n())

## # A tibble: 5 × 2  
## norm\_condition n  
## <fct> <int>  
## 1 control\_norm 231  
## 2 descriptive\_norm 227  
## 3 convention\_norm 228  
## 4 social\_norm 222  
## 5 moral\_norm 225

data\_R\_alt %>%  
 group\_by(framing\_condition) %>%  
 summarise(n = n())

## # A tibble: 3 × 2  
## framing\_condition n  
## <fct> <int>  
## 1 control\_framing 375  
## 2 pro\_env\_framing 381  
## 3 self\_enh\_framing 377

Descriptives for variables with NO missing data

Variables with NO missing data:

* ingroup\_identification
* clothing\_interest
* consumer\_intentions
* framing\_condition
* norm\_condition

with(mids\_obj, psych::describe(clothing\_interest)) # describe

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(clothing\_interest))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.13 0.8 3.15 3.15 0.82 1 5 4 -0.18 -0.46 0.02  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.13 0.8 3.15 3.15 0.82 1 5 4 -0.18 -0.46 0.02  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.13 0.8 3.15 3.15 0.82 1 5 4 -0.18 -0.46 0.02  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.13 0.8 3.15 3.15 0.82 1 5 4 -0.18 -0.46 0.02  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.13 0.8 3.15 3.15 0.82 1 5 4 -0.18 -0.46 0.02

with(mids\_obj, sd(clothing\_interest)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(clothing\_interest))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.8022691  
##   
## [[2]]  
## [1] 0.8022691  
##   
## [[3]]  
## [1] 0.8022691  
##   
## [[4]]  
## [1] 0.8022691  
##   
## [[5]]  
## [1] 0.8022691

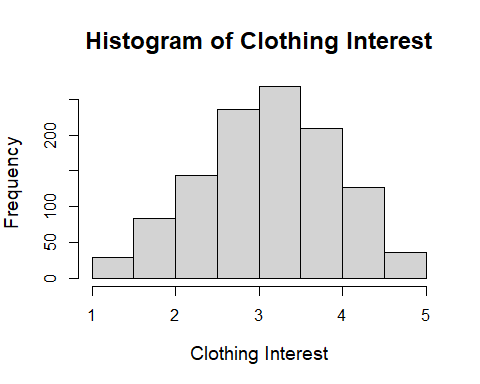
with(mids\_obj, mlv(clothing\_interest, method = "mfv")) # mode

## call :  
## with.mids(data = mids\_obj, expr = mlv(clothing\_interest, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 3  
##   
## [[2]]  
## [1] 3  
##   
## [[3]]  
## [1] 3  
##   
## [[4]]  
## [1] 3  
##   
## [[5]]  
## [1] 3

with(mids\_obj, tab1(clothing\_interest, decimal = 2, sort.group = "decreasing", graph = FALSE)) # frequency table

## call :  
## with.mids(data = mids\_obj, expr = tab1(clothing\_interest, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## clothing\_interest :   
## Frequency Percent Cum. percent  
## 3 44 3.88 3.88  
## 3.3 34 3.00 6.88  
## 3.15 30 2.65 9.53  
## 3.05 29 2.56 12.09  
## 2.95 29 2.56 14.65  
## 3.6 26 2.29 16.95  
## 3.25 26 2.29 19.24  
## 2.7 26 2.29 21.54  
## 3.55 25 2.21 23.74  
## 3.45 25 2.21 25.95  
## 2.9 25 2.21 28.16  
## 4.1 24 2.12 30.27  
## 3.5 24 2.12 32.39  
## 2.85 24 2.12 34.51  
## 3.75 23 2.03 36.54  
## 3.8 21 1.85 38.39  
## 3.7 21 1.85 40.25  
## 3.4 20 1.77 42.01  
## 3.1 20 1.77 43.78  
## 3.2 19 1.68 45.45  
## 4 18 1.59 47.04  
## 2.55 18 1.59 48.63  
## 2.2 18 1.59 50.22  
## 4.15 17 1.50 51.72  
## 3.35 17 1.50 53.22  
## 3.85 16 1.41 54.63  
## 3.65 16 1.41 56.05  
## 2.5 16 1.41 57.46  
## 2.45 16 1.41 58.87  
## 2.4 16 1.41 60.28  
## 4.35 14 1.24 61.52  
## 3.95 14 1.24 62.75  
## 3.9 14 1.24 63.99  
## 2.65 14 1.24 65.23  
## 2.6 14 1.24 66.46  
## 1.8 14 1.24 67.70  
## 2.8 13 1.15 68.84  
## 2.75 13 1.15 69.99  
## 2.05 13 1.15 71.14  
## 1.95 13 1.15 72.29  
## 2.25 12 1.06 73.35  
## 4.25 11 0.97 74.32  
## 4.2 11 0.97 75.29  
## 2.35 11 0.97 76.26  
## 2.1 11 0.97 77.23  
## 1.85 11 0.97 78.20  
## 4.45 10 0.88 79.08  
## 2.15 10 0.88 79.96  
## 4.65 9 0.79 80.76  
## 4.05 9 0.79 81.55  
## 2.3 9 0.79 82.35  
## 1.6 9 0.79 83.14  
## 4.5 8 0.71 83.85  
## 4.4 8 0.71 84.55  
## 4.3 8 0.71 85.26  
## 1.75 8 0.71 85.97  
## 1.45 7 0.62 86.58  
## 1.25 7 0.62 87.20  
## 3.05263157894737 6 0.53 87.73  
## 2 6 0.53 88.26  
## 1.65 6 0.53 88.79  
## 1.55 6 0.53 89.32  
## 4.85 5 0.44 89.76  
## 4.75 5 0.44 90.20  
## 4.55 4 0.35 90.56  
## 2.63157894736842 4 0.35 90.91  
## 1.9 4 0.35 91.26  
## 1.2 4 0.35 91.62  
## 4.6 3 0.26 91.88  
## 3.78947368421053 3 0.26 92.14  
## 3.52631578947368 3 0.26 92.41  
## 3.42105263157895 3 0.26 92.67  
## 3.10526315789474 3 0.26 92.94  
## 2.15789473684211 3 0.26 93.20  
## 1.94736842105263 3 0.26 93.47  
## 1.35 3 0.26 93.73  
## 4.8 2 0.18 93.91  
## 4.7 2 0.18 94.09  
## 4.42105263157895 2 0.18 94.26  
## 4.10526315789474 2 0.18 94.44  
## 3.94736842105263 2 0.18 94.62  
## 3.73684210526316 2 0.18 94.79  
## 3.47368421052632 2 0.18 94.97  
## 3.36842105263158 2 0.18 95.15  
## 3.22222222222222 2 0.18 95.32  
## 2.94736842105263 2 0.18 95.50  
## 2.89473684210526 2 0.18 95.68  
## 2.84210526315789 2 0.18 95.85  
## 2.57894736842105 2 0.18 96.03  
## 2.31578947368421 2 0.18 96.20  
## 2.21052631578947 2 0.18 96.38  
## 2.05263157894737 2 0.18 96.56  
## 1.7 2 0.18 96.73  
## 1.5 2 0.18 96.91  
## 1.4 2 0.18 97.09  
## 5 1 0.09 97.18  
## 4.95 1 0.09 97.26  
## 4.9 1 0.09 97.35  
## 4.78947368421053 1 0.09 97.44  
## 4.66666666666667 1 0.09 97.53  
## 4.57894736842105 1 0.09 97.62  
## 4.21052631578947 1 0.09 97.71  
## 4.15789473684211 1 0.09 97.79  
## 4.11111111111111 1 0.09 97.88  
## 3.94444444444444 1 0.09 97.97  
## 3.89473684210526 1 0.09 98.06  
## 3.63157894736842 1 0.09 98.15  
## 3.61111111111111 1 0.09 98.23  
## 3.57894736842105 1 0.09 98.32  
## 3.44444444444444 1 0.09 98.41  
## 3.38888888888889 1 0.09 98.50  
## 3.26315789473684 1 0.09 98.59  
## 3.21052631578947 1 0.09 98.68  
## 3.15789473684211 1 0.09 98.76  
## 3.11111111111111 1 0.09 98.85  
## 2.91666666666667 1 0.09 98.94  
## 2.83333333333333 1 0.09 99.03  
## 2.78947368421053 1 0.09 99.12  
## 2.68421052631579 1 0.09 99.21  
## 2.42105263157895 1 0.09 99.29  
## 2.36842105263158 1 0.09 99.38  
## 2.26315789473684 1 0.09 99.47  
## 1.73333333333333 1 0.09 99.56  
## 1.64705882352941 1 0.09 99.65  
## 1.42105263157895 1 0.09 99.74  
## 1.15 1 0.09 99.82  
## 1.1 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## clothing\_interest :   
## Frequency Percent Cum. percent  
## 3 44 3.88 3.88  
## 3.3 34 3.00 6.88  
## 3.15 30 2.65 9.53  
## 3.05 29 2.56 12.09  
## 2.95 29 2.56 14.65  
## 3.6 26 2.29 16.95  
## 3.25 26 2.29 19.24  
## 2.7 26 2.29 21.54  
## 3.55 25 2.21 23.74  
## 3.45 25 2.21 25.95  
## 2.9 25 2.21 28.16  
## 4.1 24 2.12 30.27  
## 3.5 24 2.12 32.39  
## 2.85 24 2.12 34.51  
## 3.75 23 2.03 36.54  
## 3.8 21 1.85 38.39  
## 3.7 21 1.85 40.25  
## 3.4 20 1.77 42.01  
## 3.1 20 1.77 43.78  
## 3.2 19 1.68 45.45  
## 4 18 1.59 47.04  
## 2.55 18 1.59 48.63  
## 2.2 18 1.59 50.22  
## 4.15 17 1.50 51.72  
## 3.35 17 1.50 53.22  
## 3.85 16 1.41 54.63  
## 3.65 16 1.41 56.05  
## 2.5 16 1.41 57.46  
## 2.45 16 1.41 58.87  
## 2.4 16 1.41 60.28  
## 4.35 14 1.24 61.52  
## 3.95 14 1.24 62.75  
## 3.9 14 1.24 63.99  
## 2.65 14 1.24 65.23  
## 2.6 14 1.24 66.46  
## 1.8 14 1.24 67.70  
## 2.8 13 1.15 68.84  
## 2.75 13 1.15 69.99  
## 2.05 13 1.15 71.14  
## 1.95 13 1.15 72.29  
## 2.25 12 1.06 73.35  
## 4.25 11 0.97 74.32  
## 4.2 11 0.97 75.29  
## 2.35 11 0.97 76.26  
## 2.1 11 0.97 77.23  
## 1.85 11 0.97 78.20  
## 4.45 10 0.88 79.08  
## 2.15 10 0.88 79.96  
## 4.65 9 0.79 80.76  
## 4.05 9 0.79 81.55  
## 2.3 9 0.79 82.35  
## 1.6 9 0.79 83.14  
## 4.5 8 0.71 83.85  
## 4.4 8 0.71 84.55  
## 4.3 8 0.71 85.26  
## 1.75 8 0.71 85.97  
## 1.45 7 0.62 86.58  
## 1.25 7 0.62 87.20  
## 3.05263157894737 6 0.53 87.73  
## 2 6 0.53 88.26  
## 1.65 6 0.53 88.79  
## 1.55 6 0.53 89.32  
## 4.85 5 0.44 89.76  
## 4.75 5 0.44 90.20  
## 4.55 4 0.35 90.56  
## 2.63157894736842 4 0.35 90.91  
## 1.9 4 0.35 91.26  
## 1.2 4 0.35 91.62  
## 4.6 3 0.26 91.88  
## 3.78947368421053 3 0.26 92.14  
## 3.52631578947368 3 0.26 92.41  
## 3.42105263157895 3 0.26 92.67  
## 3.10526315789474 3 0.26 92.94  
## 2.15789473684211 3 0.26 93.20  
## 1.94736842105263 3 0.26 93.47  
## 1.35 3 0.26 93.73  
## 4.8 2 0.18 93.91  
## 4.7 2 0.18 94.09  
## 4.42105263157895 2 0.18 94.26  
## 4.10526315789474 2 0.18 94.44  
## 3.94736842105263 2 0.18 94.62  
## 3.73684210526316 2 0.18 94.79  
## 3.47368421052632 2 0.18 94.97  
## 3.36842105263158 2 0.18 95.15  
## 3.22222222222222 2 0.18 95.32  
## 2.94736842105263 2 0.18 95.50  
## 2.89473684210526 2 0.18 95.68  
## 2.84210526315789 2 0.18 95.85  
## 2.57894736842105 2 0.18 96.03  
## 2.31578947368421 2 0.18 96.20  
## 2.21052631578947 2 0.18 96.38  
## 2.05263157894737 2 0.18 96.56  
## 1.7 2 0.18 96.73  
## 1.5 2 0.18 96.91  
## 1.4 2 0.18 97.09  
## 5 1 0.09 97.18  
## 4.95 1 0.09 97.26  
## 4.9 1 0.09 97.35  
## 4.78947368421053 1 0.09 97.44  
## 4.66666666666667 1 0.09 97.53  
## 4.57894736842105 1 0.09 97.62  
## 4.21052631578947 1 0.09 97.71  
## 4.15789473684211 1 0.09 97.79  
## 4.11111111111111 1 0.09 97.88  
## 3.94444444444444 1 0.09 97.97  
## 3.89473684210526 1 0.09 98.06  
## 3.63157894736842 1 0.09 98.15  
## 3.61111111111111 1 0.09 98.23  
## 3.57894736842105 1 0.09 98.32  
## 3.44444444444444 1 0.09 98.41  
## 3.38888888888889 1 0.09 98.50  
## 3.26315789473684 1 0.09 98.59  
## 3.21052631578947 1 0.09 98.68  
## 3.15789473684211 1 0.09 98.76  
## 3.11111111111111 1 0.09 98.85  
## 2.91666666666667 1 0.09 98.94  
## 2.83333333333333 1 0.09 99.03  
## 2.78947368421053 1 0.09 99.12  
## 2.68421052631579 1 0.09 99.21  
## 2.42105263157895 1 0.09 99.29  
## 2.36842105263158 1 0.09 99.38  
## 2.26315789473684 1 0.09 99.47  
## 1.73333333333333 1 0.09 99.56  
## 1.64705882352941 1 0.09 99.65  
## 1.42105263157895 1 0.09 99.74  
## 1.15 1 0.09 99.82  
## 1.1 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## clothing\_interest :   
## Frequency Percent Cum. percent  
## 3 44 3.88 3.88  
## 3.3 34 3.00 6.88  
## 3.15 30 2.65 9.53  
## 3.05 29 2.56 12.09  
## 2.95 29 2.56 14.65  
## 3.6 26 2.29 16.95  
## 3.25 26 2.29 19.24  
## 2.7 26 2.29 21.54  
## 3.55 25 2.21 23.74  
## 3.45 25 2.21 25.95  
## 2.9 25 2.21 28.16  
## 4.1 24 2.12 30.27  
## 3.5 24 2.12 32.39  
## 2.85 24 2.12 34.51  
## 3.75 23 2.03 36.54  
## 3.8 21 1.85 38.39  
## 3.7 21 1.85 40.25  
## 3.4 20 1.77 42.01  
## 3.1 20 1.77 43.78  
## 3.2 19 1.68 45.45  
## 4 18 1.59 47.04  
## 2.55 18 1.59 48.63  
## 2.2 18 1.59 50.22  
## 4.15 17 1.50 51.72  
## 3.35 17 1.50 53.22  
## 3.85 16 1.41 54.63  
## 3.65 16 1.41 56.05  
## 2.5 16 1.41 57.46  
## 2.45 16 1.41 58.87  
## 2.4 16 1.41 60.28  
## 4.35 14 1.24 61.52  
## 3.95 14 1.24 62.75  
## 3.9 14 1.24 63.99  
## 2.65 14 1.24 65.23  
## 2.6 14 1.24 66.46  
## 1.8 14 1.24 67.70  
## 2.8 13 1.15 68.84  
## 2.75 13 1.15 69.99  
## 2.05 13 1.15 71.14  
## 1.95 13 1.15 72.29  
## 2.25 12 1.06 73.35  
## 4.25 11 0.97 74.32  
## 4.2 11 0.97 75.29  
## 2.35 11 0.97 76.26  
## 2.1 11 0.97 77.23  
## 1.85 11 0.97 78.20  
## 4.45 10 0.88 79.08  
## 2.15 10 0.88 79.96  
## 4.65 9 0.79 80.76  
## 4.05 9 0.79 81.55  
## 2.3 9 0.79 82.35  
## 1.6 9 0.79 83.14  
## 4.5 8 0.71 83.85  
## 4.4 8 0.71 84.55  
## 4.3 8 0.71 85.26  
## 1.75 8 0.71 85.97  
## 1.45 7 0.62 86.58  
## 1.25 7 0.62 87.20  
## 3.05263157894737 6 0.53 87.73  
## 2 6 0.53 88.26  
## 1.65 6 0.53 88.79  
## 1.55 6 0.53 89.32  
## 4.85 5 0.44 89.76  
## 4.75 5 0.44 90.20  
## 4.55 4 0.35 90.56  
## 2.63157894736842 4 0.35 90.91  
## 1.9 4 0.35 91.26  
## 1.2 4 0.35 91.62  
## 4.6 3 0.26 91.88  
## 3.78947368421053 3 0.26 92.14  
## 3.52631578947368 3 0.26 92.41  
## 3.42105263157895 3 0.26 92.67  
## 3.10526315789474 3 0.26 92.94  
## 2.15789473684211 3 0.26 93.20  
## 1.94736842105263 3 0.26 93.47  
## 1.35 3 0.26 93.73  
## 4.8 2 0.18 93.91  
## 4.7 2 0.18 94.09  
## 4.42105263157895 2 0.18 94.26  
## 4.10526315789474 2 0.18 94.44  
## 3.94736842105263 2 0.18 94.62  
## 3.73684210526316 2 0.18 94.79  
## 3.47368421052632 2 0.18 94.97  
## 3.36842105263158 2 0.18 95.15  
## 3.22222222222222 2 0.18 95.32  
## 2.94736842105263 2 0.18 95.50  
## 2.89473684210526 2 0.18 95.68  
## 2.84210526315789 2 0.18 95.85  
## 2.57894736842105 2 0.18 96.03  
## 2.31578947368421 2 0.18 96.20  
## 2.21052631578947 2 0.18 96.38  
## 2.05263157894737 2 0.18 96.56  
## 1.7 2 0.18 96.73  
## 1.5 2 0.18 96.91  
## 1.4 2 0.18 97.09  
## 5 1 0.09 97.18  
## 4.95 1 0.09 97.26  
## 4.9 1 0.09 97.35  
## 4.78947368421053 1 0.09 97.44  
## 4.66666666666667 1 0.09 97.53  
## 4.57894736842105 1 0.09 97.62  
## 4.21052631578947 1 0.09 97.71  
## 4.15789473684211 1 0.09 97.79  
## 4.11111111111111 1 0.09 97.88  
## 3.94444444444444 1 0.09 97.97  
## 3.89473684210526 1 0.09 98.06  
## 3.63157894736842 1 0.09 98.15  
## 3.61111111111111 1 0.09 98.23  
## 3.57894736842105 1 0.09 98.32  
## 3.44444444444444 1 0.09 98.41  
## 3.38888888888889 1 0.09 98.50  
## 3.26315789473684 1 0.09 98.59  
## 3.21052631578947 1 0.09 98.68  
## 3.15789473684211 1 0.09 98.76  
## 3.11111111111111 1 0.09 98.85  
## 2.91666666666667 1 0.09 98.94  
## 2.83333333333333 1 0.09 99.03  
## 2.78947368421053 1 0.09 99.12  
## 2.68421052631579 1 0.09 99.21  
## 2.42105263157895 1 0.09 99.29  
## 2.36842105263158 1 0.09 99.38  
## 2.26315789473684 1 0.09 99.47  
## 1.73333333333333 1 0.09 99.56  
## 1.64705882352941 1 0.09 99.65  
## 1.42105263157895 1 0.09 99.74  
## 1.15 1 0.09 99.82  
## 1.1 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## clothing\_interest :   
## Frequency Percent Cum. percent  
## 3 44 3.88 3.88  
## 3.3 34 3.00 6.88  
## 3.15 30 2.65 9.53  
## 3.05 29 2.56 12.09  
## 2.95 29 2.56 14.65  
## 3.6 26 2.29 16.95  
## 3.25 26 2.29 19.24  
## 2.7 26 2.29 21.54  
## 3.55 25 2.21 23.74  
## 3.45 25 2.21 25.95  
## 2.9 25 2.21 28.16  
## 4.1 24 2.12 30.27  
## 3.5 24 2.12 32.39  
## 2.85 24 2.12 34.51  
## 3.75 23 2.03 36.54  
## 3.8 21 1.85 38.39  
## 3.7 21 1.85 40.25  
## 3.4 20 1.77 42.01  
## 3.1 20 1.77 43.78  
## 3.2 19 1.68 45.45  
## 4 18 1.59 47.04  
## 2.55 18 1.59 48.63  
## 2.2 18 1.59 50.22  
## 4.15 17 1.50 51.72  
## 3.35 17 1.50 53.22  
## 3.85 16 1.41 54.63  
## 3.65 16 1.41 56.05  
## 2.5 16 1.41 57.46  
## 2.45 16 1.41 58.87  
## 2.4 16 1.41 60.28  
## 4.35 14 1.24 61.52  
## 3.95 14 1.24 62.75  
## 3.9 14 1.24 63.99  
## 2.65 14 1.24 65.23  
## 2.6 14 1.24 66.46  
## 1.8 14 1.24 67.70  
## 2.8 13 1.15 68.84  
## 2.75 13 1.15 69.99  
## 2.05 13 1.15 71.14  
## 1.95 13 1.15 72.29  
## 2.25 12 1.06 73.35  
## 4.25 11 0.97 74.32  
## 4.2 11 0.97 75.29  
## 2.35 11 0.97 76.26  
## 2.1 11 0.97 77.23  
## 1.85 11 0.97 78.20  
## 4.45 10 0.88 79.08  
## 2.15 10 0.88 79.96  
## 4.65 9 0.79 80.76  
## 4.05 9 0.79 81.55  
## 2.3 9 0.79 82.35  
## 1.6 9 0.79 83.14  
## 4.5 8 0.71 83.85  
## 4.4 8 0.71 84.55  
## 4.3 8 0.71 85.26  
## 1.75 8 0.71 85.97  
## 1.45 7 0.62 86.58  
## 1.25 7 0.62 87.20  
## 3.05263157894737 6 0.53 87.73  
## 2 6 0.53 88.26  
## 1.65 6 0.53 88.79  
## 1.55 6 0.53 89.32  
## 4.85 5 0.44 89.76  
## 4.75 5 0.44 90.20  
## 4.55 4 0.35 90.56  
## 2.63157894736842 4 0.35 90.91  
## 1.9 4 0.35 91.26  
## 1.2 4 0.35 91.62  
## 4.6 3 0.26 91.88  
## 3.78947368421053 3 0.26 92.14  
## 3.52631578947368 3 0.26 92.41  
## 3.42105263157895 3 0.26 92.67  
## 3.10526315789474 3 0.26 92.94  
## 2.15789473684211 3 0.26 93.20  
## 1.94736842105263 3 0.26 93.47  
## 1.35 3 0.26 93.73  
## 4.8 2 0.18 93.91  
## 4.7 2 0.18 94.09  
## 4.42105263157895 2 0.18 94.26  
## 4.10526315789474 2 0.18 94.44  
## 3.94736842105263 2 0.18 94.62  
## 3.73684210526316 2 0.18 94.79  
## 3.47368421052632 2 0.18 94.97  
## 3.36842105263158 2 0.18 95.15  
## 3.22222222222222 2 0.18 95.32  
## 2.94736842105263 2 0.18 95.50  
## 2.89473684210526 2 0.18 95.68  
## 2.84210526315789 2 0.18 95.85  
## 2.57894736842105 2 0.18 96.03  
## 2.31578947368421 2 0.18 96.20  
## 2.21052631578947 2 0.18 96.38  
## 2.05263157894737 2 0.18 96.56  
## 1.7 2 0.18 96.73  
## 1.5 2 0.18 96.91  
## 1.4 2 0.18 97.09  
## 5 1 0.09 97.18  
## 4.95 1 0.09 97.26  
## 4.9 1 0.09 97.35  
## 4.78947368421053 1 0.09 97.44  
## 4.66666666666667 1 0.09 97.53  
## 4.57894736842105 1 0.09 97.62  
## 4.21052631578947 1 0.09 97.71  
## 4.15789473684211 1 0.09 97.79  
## 4.11111111111111 1 0.09 97.88  
## 3.94444444444444 1 0.09 97.97  
## 3.89473684210526 1 0.09 98.06  
## 3.63157894736842 1 0.09 98.15  
## 3.61111111111111 1 0.09 98.23  
## 3.57894736842105 1 0.09 98.32  
## 3.44444444444444 1 0.09 98.41  
## 3.38888888888889 1 0.09 98.50  
## 3.26315789473684 1 0.09 98.59  
## 3.21052631578947 1 0.09 98.68  
## 3.15789473684211 1 0.09 98.76  
## 3.11111111111111 1 0.09 98.85  
## 2.91666666666667 1 0.09 98.94  
## 2.83333333333333 1 0.09 99.03  
## 2.78947368421053 1 0.09 99.12  
## 2.68421052631579 1 0.09 99.21  
## 2.42105263157895 1 0.09 99.29  
## 2.36842105263158 1 0.09 99.38  
## 2.26315789473684 1 0.09 99.47  
## 1.73333333333333 1 0.09 99.56  
## 1.64705882352941 1 0.09 99.65  
## 1.42105263157895 1 0.09 99.74  
## 1.15 1 0.09 99.82  
## 1.1 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## clothing\_interest :   
## Frequency Percent Cum. percent  
## 3 44 3.88 3.88  
## 3.3 34 3.00 6.88  
## 3.15 30 2.65 9.53  
## 3.05 29 2.56 12.09  
## 2.95 29 2.56 14.65  
## 3.6 26 2.29 16.95  
## 3.25 26 2.29 19.24  
## 2.7 26 2.29 21.54  
## 3.55 25 2.21 23.74  
## 3.45 25 2.21 25.95  
## 2.9 25 2.21 28.16  
## 4.1 24 2.12 30.27  
## 3.5 24 2.12 32.39  
## 2.85 24 2.12 34.51  
## 3.75 23 2.03 36.54  
## 3.8 21 1.85 38.39  
## 3.7 21 1.85 40.25  
## 3.4 20 1.77 42.01  
## 3.1 20 1.77 43.78  
## 3.2 19 1.68 45.45  
## 4 18 1.59 47.04  
## 2.55 18 1.59 48.63  
## 2.2 18 1.59 50.22  
## 4.15 17 1.50 51.72  
## 3.35 17 1.50 53.22  
## 3.85 16 1.41 54.63  
## 3.65 16 1.41 56.05  
## 2.5 16 1.41 57.46  
## 2.45 16 1.41 58.87  
## 2.4 16 1.41 60.28  
## 4.35 14 1.24 61.52  
## 3.95 14 1.24 62.75  
## 3.9 14 1.24 63.99  
## 2.65 14 1.24 65.23  
## 2.6 14 1.24 66.46  
## 1.8 14 1.24 67.70  
## 2.8 13 1.15 68.84  
## 2.75 13 1.15 69.99  
## 2.05 13 1.15 71.14  
## 1.95 13 1.15 72.29  
## 2.25 12 1.06 73.35  
## 4.25 11 0.97 74.32  
## 4.2 11 0.97 75.29  
## 2.35 11 0.97 76.26  
## 2.1 11 0.97 77.23  
## 1.85 11 0.97 78.20  
## 4.45 10 0.88 79.08  
## 2.15 10 0.88 79.96  
## 4.65 9 0.79 80.76  
## 4.05 9 0.79 81.55  
## 2.3 9 0.79 82.35  
## 1.6 9 0.79 83.14  
## 4.5 8 0.71 83.85  
## 4.4 8 0.71 84.55  
## 4.3 8 0.71 85.26  
## 1.75 8 0.71 85.97  
## 1.45 7 0.62 86.58  
## 1.25 7 0.62 87.20  
## 3.05263157894737 6 0.53 87.73  
## 2 6 0.53 88.26  
## 1.65 6 0.53 88.79  
## 1.55 6 0.53 89.32  
## 4.85 5 0.44 89.76  
## 4.75 5 0.44 90.20  
## 4.55 4 0.35 90.56  
## 2.63157894736842 4 0.35 90.91  
## 1.9 4 0.35 91.26  
## 1.2 4 0.35 91.62  
## 4.6 3 0.26 91.88  
## 3.78947368421053 3 0.26 92.14  
## 3.52631578947368 3 0.26 92.41  
## 3.42105263157895 3 0.26 92.67  
## 3.10526315789474 3 0.26 92.94  
## 2.15789473684211 3 0.26 93.20  
## 1.94736842105263 3 0.26 93.47  
## 1.35 3 0.26 93.73  
## 4.8 2 0.18 93.91  
## 4.7 2 0.18 94.09  
## 4.42105263157895 2 0.18 94.26  
## 4.10526315789474 2 0.18 94.44  
## 3.94736842105263 2 0.18 94.62  
## 3.73684210526316 2 0.18 94.79  
## 3.47368421052632 2 0.18 94.97  
## 3.36842105263158 2 0.18 95.15  
## 3.22222222222222 2 0.18 95.32  
## 2.94736842105263 2 0.18 95.50  
## 2.89473684210526 2 0.18 95.68  
## 2.84210526315789 2 0.18 95.85  
## 2.57894736842105 2 0.18 96.03  
## 2.31578947368421 2 0.18 96.20  
## 2.21052631578947 2 0.18 96.38  
## 2.05263157894737 2 0.18 96.56  
## 1.7 2 0.18 96.73  
## 1.5 2 0.18 96.91  
## 1.4 2 0.18 97.09  
## 5 1 0.09 97.18  
## 4.95 1 0.09 97.26  
## 4.9 1 0.09 97.35  
## 4.78947368421053 1 0.09 97.44  
## 4.66666666666667 1 0.09 97.53  
## 4.57894736842105 1 0.09 97.62  
## 4.21052631578947 1 0.09 97.71  
## 4.15789473684211 1 0.09 97.79  
## 4.11111111111111 1 0.09 97.88  
## 3.94444444444444 1 0.09 97.97  
## 3.89473684210526 1 0.09 98.06  
## 3.63157894736842 1 0.09 98.15  
## 3.61111111111111 1 0.09 98.23  
## 3.57894736842105 1 0.09 98.32  
## 3.44444444444444 1 0.09 98.41  
## 3.38888888888889 1 0.09 98.50  
## 3.26315789473684 1 0.09 98.59  
## 3.21052631578947 1 0.09 98.68  
## 3.15789473684211 1 0.09 98.76  
## 3.11111111111111 1 0.09 98.85  
## 2.91666666666667 1 0.09 98.94  
## 2.83333333333333 1 0.09 99.03  
## 2.78947368421053 1 0.09 99.12  
## 2.68421052631579 1 0.09 99.21  
## 2.42105263157895 1 0.09 99.29  
## 2.36842105263158 1 0.09 99.38  
## 2.26315789473684 1 0.09 99.47  
## 1.73333333333333 1 0.09 99.56  
## 1.64705882352941 1 0.09 99.65  
## 1.42105263157895 1 0.09 99.74  
## 1.15 1 0.09 99.82  
## 1.1 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00

with(mids\_obj, hist(clothing\_interest, main = "Histogram of Clothing Interest", xlab = "Clothing Interest", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.5)) # histogram



## call :  
## with.mids(data = mids\_obj, expr = hist(clothing\_interest, main = "Histogram of Clothing Interest",   
## xlab = "Clothing Interest", ylab = "Frequency", cex.lab = 1.2,   
## cex.main = 1.5))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0  
##   
## $counts  
## [1] 29 84 144 236 268 209 127 36  
##   
## $density  
## [1] 0.05119153 0.14827891 0.25419241 0.41659312 0.47308032 0.36893204 0.22418358  
## [8] 0.06354810  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75  
##   
## $xname  
## [1] "clothing\_interest"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[2]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0  
##   
## $counts  
## [1] 29 84 144 236 268 209 127 36  
##   
## $density  
## [1] 0.05119153 0.14827891 0.25419241 0.41659312 0.47308032 0.36893204 0.22418358  
## [8] 0.06354810  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75  
##   
## $xname  
## [1] "clothing\_interest"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[3]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0  
##   
## $counts  
## [1] 29 84 144 236 268 209 127 36  
##   
## $density  
## [1] 0.05119153 0.14827891 0.25419241 0.41659312 0.47308032 0.36893204 0.22418358  
## [8] 0.06354810  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75  
##   
## $xname  
## [1] "clothing\_interest"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[4]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0  
##   
## $counts  
## [1] 29 84 144 236 268 209 127 36  
##   
## $density  
## [1] 0.05119153 0.14827891 0.25419241 0.41659312 0.47308032 0.36893204 0.22418358  
## [8] 0.06354810  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75  
##   
## $xname  
## [1] "clothing\_interest"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[5]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0  
##   
## $counts  
## [1] 29 84 144 236 268 209 127 36  
##   
## $density  
## [1] 0.05119153 0.14827891 0.25419241 0.41659312 0.47308032 0.36893204 0.22418358  
## [8] 0.06354810  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75  
##   
## $xname  
## [1] "clothing\_interest"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"

with(mids\_obj, psych::describe(ingroup\_identification))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(ingroup\_identification))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.64 1.01 4.64 4.66 0.95 1 7 6 -0.27 0.17 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.64 1.01 4.64 4.66 0.95 1 7 6 -0.27 0.17 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.64 1.01 4.64 4.66 0.95 1 7 6 -0.27 0.17 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.64 1.01 4.64 4.66 0.95 1 7 6 -0.27 0.17 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.64 1.01 4.64 4.66 0.95 1 7 6 -0.27 0.17 0.03

with(mids\_obj, sd(ingroup\_identification))

## call :  
## with.mids(data = mids\_obj, expr = sd(ingroup\_identification))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 1.012186  
##   
## [[2]]  
## [1] 1.012186  
##   
## [[3]]  
## [1] 1.012186  
##   
## [[4]]  
## [1] 1.012186  
##   
## [[5]]  
## [1] 1.012186

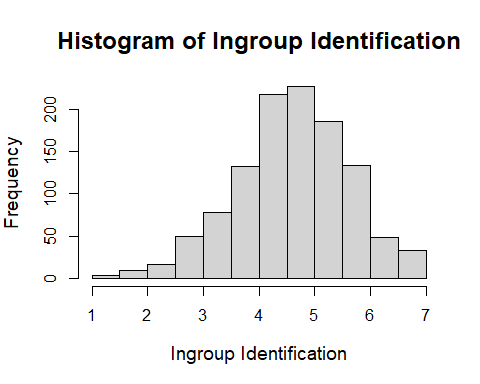
with(mids\_obj, mlv(ingroup\_identification, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(ingroup\_identification,   
## method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 5  
##   
## [[2]]  
## [1] 5  
##   
## [[3]]  
## [1] 5  
##   
## [[4]]  
## [1] 5  
##   
## [[5]]  
## [1] 5

with(mids\_obj, tab1(ingroup\_identification, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(ingroup\_identification,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## ingroup\_identification :   
## Frequency Percent Cum. percent  
## 5 41 3.6 3.6  
## 4.5 37 3.3 6.9  
## 4.57142857142857 36 3.2 10.1  
## 4.92857142857143 35 3.1 13.2  
## 5.21428571428571 34 3.0 16.2  
## 5.14285714285714 34 3.0 19.2  
## 4.64285714285714 32 2.8 22.0  
## 4.14285714285714 32 2.8 24.8  
## 5.07142857142857 31 2.7 27.5  
## 4.42857142857143 30 2.6 30.2  
## 4.21428571428571 30 2.6 32.8  
## 4 30 2.6 35.5  
## 4.78571428571429 29 2.6 38.0  
## 5.28571428571429 27 2.4 40.4  
## 4.28571428571429 27 2.4 42.8  
## 4.07142857142857 26 2.3 45.1  
## 5.57142857142857 24 2.1 47.2  
## 4.85714285714286 24 2.1 49.3  
## 4.71428571428571 24 2.1 51.5  
## 3.92857142857143 24 2.1 53.6  
## 6 23 2.0 55.6  
## 5.35714285714286 23 2.0 57.6  
## 4.35714285714286 23 2.0 59.7  
## 5.64285714285714 20 1.8 61.4  
## 5.71428571428571 19 1.7 63.1  
## 3.5 19 1.7 64.8  
## 5.78571428571429 18 1.6 66.4  
## 5.42857142857143 18 1.6 68.0  
## 3.85714285714286 18 1.6 69.5  
## 5.85714285714286 17 1.5 71.1  
## 3.78571428571429 17 1.5 72.6  
## 3.71428571428571 17 1.5 74.1  
## 3.64285714285714 16 1.4 75.5  
## 5.5 14 1.2 76.7  
## 3.21428571428571 12 1.1 77.8  
## 7 11 1.0 78.7  
## 5.92857142857143 10 0.9 79.6  
## 3.42857142857143 10 0.9 80.5  
## 3.35714285714286 10 0.9 81.4  
## 3.28571428571429 10 0.9 82.3  
## 3.14285714285714 10 0.9 83.1  
## 2.57142857142857 10 0.9 84.0  
## 6.21428571428571 9 0.8 84.8  
## 6.07142857142857 9 0.8 85.6  
## 6.28571428571429 8 0.7 86.3  
## 3 8 0.7 87.0  
## 3.57142857142857 7 0.6 87.6  
## 2.85714285714286 7 0.6 88.3  
## 6.71428571428571 6 0.5 88.8  
## 6.35714285714286 6 0.5 89.3  
## 6.14285714285714 6 0.5 89.8  
## 2.92857142857143 6 0.5 90.4  
## 2.78571428571429 6 0.5 90.9  
## 6.64285714285714 5 0.4 91.4  
## 6.5 5 0.4 91.8  
## 3.07142857142857 5 0.4 92.2  
## 2.71428571428571 5 0.4 92.7  
## 2.64285714285714 5 0.4 93.1  
## 2.42857142857143 5 0.4 93.6  
## 6.57142857142857 4 0.4 93.9  
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## 6.92857142857143 3 0.3 94.5  
## 6.42857142857143 3 0.3 94.8  
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## 4.30769230769231 2 0.2 96.4  
## 4.23076923076923 2 0.2 96.6  
## 2.76923076923077 2 0.2 96.7  
## 2.14285714285714 2 0.2 96.9  
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## 1.85714285714286 2 0.2 97.3  
## 1.78571428571429 2 0.2 97.4  
## 6.85714285714286 1 0.1 97.5  
## 6.53846153846154 1 0.1 97.6  
## 6.1 1 0.1 97.7  
## 6.07692307692308 1 0.1 97.8  
## 5.58333333333333 1 0.1 97.9  
## 5.53846153846154 1 0.1 98.0  
## 5.46153846153846 1 0.1 98.1  
## 5.33333333333333 1 0.1 98.1  
## 4.84615384615385 1 0.1 98.2  
## 4.69230769230769 1 0.1 98.3  
## 4.61538461538461 1 0.1 98.4  
## 4.53846153846154 1 0.1 98.5  
## 4.46153846153846 1 0.1 98.6  
## 4.07692307692308 1 0.1 98.7  
## 3.90909090909091 1 0.1 98.8  
## 3.76923076923077 1 0.1 98.9  
## 3.53846153846154 1 0.1 98.9  
## 3.46153846153846 1 0.1 99.0  
## 3.23076923076923 1 0.1 99.1  
## 2.84615384615385 1 0.1 99.2  
## 2.5 1 0.1 99.3  
## 2.28571428571429 1 0.1 99.4  
## 2.21428571428571 1 0.1 99.5  
## 2 1 0.1 99.6  
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## 1.57142857142857 1 0.1 99.7  
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## [[2]]  
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## 4.5 37 3.3 6.9  
## 4.57142857142857 36 3.2 10.1  
## 4.92857142857143 35 3.1 13.2  
## 5.21428571428571 34 3.0 16.2  
## 5.14285714285714 34 3.0 19.2  
## 4.64285714285714 32 2.8 22.0  
## 4.14285714285714 32 2.8 24.8  
## 5.07142857142857 31 2.7 27.5  
## 4.42857142857143 30 2.6 30.2  
## 4.21428571428571 30 2.6 32.8  
## 4 30 2.6 35.5  
## 4.78571428571429 29 2.6 38.0  
## 5.28571428571429 27 2.4 40.4  
## 4.28571428571429 27 2.4 42.8  
## 4.07142857142857 26 2.3 45.1  
## 5.57142857142857 24 2.1 47.2  
## 4.85714285714286 24 2.1 49.3  
## 4.71428571428571 24 2.1 51.5  
## 3.92857142857143 24 2.1 53.6  
## 6 23 2.0 55.6  
## 5.35714285714286 23 2.0 57.6  
## 4.35714285714286 23 2.0 59.7  
## 5.64285714285714 20 1.8 61.4  
## 5.71428571428571 19 1.7 63.1  
## 3.5 19 1.7 64.8  
## 5.78571428571429 18 1.6 66.4  
## 5.42857142857143 18 1.6 68.0  
## 3.85714285714286 18 1.6 69.5  
## 5.85714285714286 17 1.5 71.1  
## 3.78571428571429 17 1.5 72.6  
## 3.71428571428571 17 1.5 74.1  
## 3.64285714285714 16 1.4 75.5  
## 5.5 14 1.2 76.7  
## 3.21428571428571 12 1.1 77.8  
## 7 11 1.0 78.7  
## 5.92857142857143 10 0.9 79.6  
## 3.42857142857143 10 0.9 80.5  
## 3.35714285714286 10 0.9 81.4  
## 3.28571428571429 10 0.9 82.3  
## 3.14285714285714 10 0.9 83.1  
## 2.57142857142857 10 0.9 84.0  
## 6.21428571428571 9 0.8 84.8  
## 6.07142857142857 9 0.8 85.6  
## 6.28571428571429 8 0.7 86.3  
## 3 8 0.7 87.0  
## 3.57142857142857 7 0.6 87.6  
## 2.85714285714286 7 0.6 88.3  
## 6.71428571428571 6 0.5 88.8  
## 6.35714285714286 6 0.5 89.3  
## 6.14285714285714 6 0.5 89.8  
## 2.92857142857143 6 0.5 90.4  
## 2.78571428571429 6 0.5 90.9  
## 6.64285714285714 5 0.4 91.4  
## 6.5 5 0.4 91.8  
## 3.07142857142857 5 0.4 92.2  
## 2.71428571428571 5 0.4 92.7  
## 2.64285714285714 5 0.4 93.1  
## 2.42857142857143 5 0.4 93.6  
## 6.57142857142857 4 0.4 93.9  
## 4.38461538461539 4 0.4 94.3  
## 6.92857142857143 3 0.3 94.5  
## 6.42857142857143 3 0.3 94.8  
## 5.15384615384615 3 0.3 95.1  
## 4.15384615384615 3 0.3 95.3  
## 2.35714285714286 3 0.3 95.6  
## 2.07142857142857 3 0.3 95.9  
## 6.78571428571429 2 0.2 96.0  
## 4.76923076923077 2 0.2 96.2  
## 4.30769230769231 2 0.2 96.4  
## 4.23076923076923 2 0.2 96.6  
## 2.76923076923077 2 0.2 96.7  
## 2.14285714285714 2 0.2 96.9  
## 1.92857142857143 2 0.2 97.1  
## 1.85714285714286 2 0.2 97.3  
## 1.78571428571429 2 0.2 97.4  
## 6.85714285714286 1 0.1 97.5  
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## 6.1 1 0.1 97.7  
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## 4.84615384615385 1 0.1 98.2  
## 4.69230769230769 1 0.1 98.3  
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## 4.53846153846154 1 0.1 98.5  
## 4.46153846153846 1 0.1 98.6  
## 4.07692307692308 1 0.1 98.7  
## 3.90909090909091 1 0.1 98.8  
## 3.76923076923077 1 0.1 98.9  
## 3.53846153846154 1 0.1 98.9  
## 3.46153846153846 1 0.1 99.0  
## 3.23076923076923 1 0.1 99.1  
## 2.84615384615385 1 0.1 99.2  
## 2.5 1 0.1 99.3  
## 2.28571428571429 1 0.1 99.4  
## 2.21428571428571 1 0.1 99.5  
## 2 1 0.1 99.6  
## 1.71428571428571 1 0.1 99.6  
## 1.57142857142857 1 0.1 99.7  
## 1.42857142857143 1 0.1 99.8  
## 1.28571428571429 1 0.1 99.9  
## 1 1 0.1 100.0  
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##   
## [[3]]  
## ingroup\_identification :   
## Frequency Percent Cum. percent  
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## 4.5 37 3.3 6.9  
## 4.57142857142857 36 3.2 10.1  
## 4.92857142857143 35 3.1 13.2  
## 5.21428571428571 34 3.0 16.2  
## 5.14285714285714 34 3.0 19.2  
## 4.64285714285714 32 2.8 22.0  
## 4.14285714285714 32 2.8 24.8  
## 5.07142857142857 31 2.7 27.5  
## 4.42857142857143 30 2.6 30.2  
## 4.21428571428571 30 2.6 32.8  
## 4 30 2.6 35.5  
## 4.78571428571429 29 2.6 38.0  
## 5.28571428571429 27 2.4 40.4  
## 4.28571428571429 27 2.4 42.8  
## 4.07142857142857 26 2.3 45.1  
## 5.57142857142857 24 2.1 47.2  
## 4.85714285714286 24 2.1 49.3  
## 4.71428571428571 24 2.1 51.5  
## 3.92857142857143 24 2.1 53.6  
## 6 23 2.0 55.6  
## 5.35714285714286 23 2.0 57.6  
## 4.35714285714286 23 2.0 59.7  
## 5.64285714285714 20 1.8 61.4  
## 5.71428571428571 19 1.7 63.1  
## 3.5 19 1.7 64.8  
## 5.78571428571429 18 1.6 66.4  
## 5.42857142857143 18 1.6 68.0  
## 3.85714285714286 18 1.6 69.5  
## 5.85714285714286 17 1.5 71.1  
## 3.78571428571429 17 1.5 72.6  
## 3.71428571428571 17 1.5 74.1  
## 3.64285714285714 16 1.4 75.5  
## 5.5 14 1.2 76.7  
## 3.21428571428571 12 1.1 77.8  
## 7 11 1.0 78.7  
## 5.92857142857143 10 0.9 79.6  
## 3.42857142857143 10 0.9 80.5  
## 3.35714285714286 10 0.9 81.4  
## 3.28571428571429 10 0.9 82.3  
## 3.14285714285714 10 0.9 83.1  
## 2.57142857142857 10 0.9 84.0  
## 6.21428571428571 9 0.8 84.8  
## 6.07142857142857 9 0.8 85.6  
## 6.28571428571429 8 0.7 86.3  
## 3 8 0.7 87.0  
## 3.57142857142857 7 0.6 87.6  
## 2.85714285714286 7 0.6 88.3  
## 6.71428571428571 6 0.5 88.8  
## 6.35714285714286 6 0.5 89.3  
## 6.14285714285714 6 0.5 89.8  
## 2.92857142857143 6 0.5 90.4  
## 2.78571428571429 6 0.5 90.9  
## 6.64285714285714 5 0.4 91.4  
## 6.5 5 0.4 91.8  
## 3.07142857142857 5 0.4 92.2  
## 2.71428571428571 5 0.4 92.7  
## 2.64285714285714 5 0.4 93.1  
## 2.42857142857143 5 0.4 93.6  
## 6.57142857142857 4 0.4 93.9  
## 4.38461538461539 4 0.4 94.3  
## 6.92857142857143 3 0.3 94.5  
## 6.42857142857143 3 0.3 94.8  
## 5.15384615384615 3 0.3 95.1  
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## 2.35714285714286 3 0.3 95.6  
## 2.07142857142857 3 0.3 95.9  
## 6.78571428571429 2 0.2 96.0  
## 4.76923076923077 2 0.2 96.2  
## 4.30769230769231 2 0.2 96.4  
## 4.23076923076923 2 0.2 96.6  
## 2.76923076923077 2 0.2 96.7  
## 2.14285714285714 2 0.2 96.9  
## 1.92857142857143 2 0.2 97.1  
## 1.85714285714286 2 0.2 97.3  
## 1.78571428571429 2 0.2 97.4  
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## 6.1 1 0.1 97.7  
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## 5.53846153846154 1 0.1 98.0  
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## 5.33333333333333 1 0.1 98.1  
## 4.84615384615385 1 0.1 98.2  
## 4.69230769230769 1 0.1 98.3  
## 4.61538461538461 1 0.1 98.4  
## 4.53846153846154 1 0.1 98.5  
## 4.46153846153846 1 0.1 98.6  
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## 3.90909090909091 1 0.1 98.8  
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## 3.46153846153846 1 0.1 99.0  
## 3.23076923076923 1 0.1 99.1  
## 2.84615384615385 1 0.1 99.2  
## 2.5 1 0.1 99.3  
## 2.28571428571429 1 0.1 99.4  
## 2.21428571428571 1 0.1 99.5  
## 2 1 0.1 99.6  
## 1.71428571428571 1 0.1 99.6  
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## 1.42857142857143 1 0.1 99.8  
## 1.28571428571429 1 0.1 99.9  
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## [[4]]  
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## Frequency Percent Cum. percent  
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## 4.92857142857143 35 3.1 13.2  
## 5.21428571428571 34 3.0 16.2  
## 5.14285714285714 34 3.0 19.2  
## 4.64285714285714 32 2.8 22.0  
## 4.14285714285714 32 2.8 24.8  
## 5.07142857142857 31 2.7 27.5  
## 4.42857142857143 30 2.6 30.2  
## 4.21428571428571 30 2.6 32.8  
## 4 30 2.6 35.5  
## 4.78571428571429 29 2.6 38.0  
## 5.28571428571429 27 2.4 40.4  
## 4.28571428571429 27 2.4 42.8  
## 4.07142857142857 26 2.3 45.1  
## 5.57142857142857 24 2.1 47.2  
## 4.85714285714286 24 2.1 49.3  
## 4.71428571428571 24 2.1 51.5  
## 3.92857142857143 24 2.1 53.6  
## 6 23 2.0 55.6  
## 5.35714285714286 23 2.0 57.6  
## 4.35714285714286 23 2.0 59.7  
## 5.64285714285714 20 1.8 61.4  
## 5.71428571428571 19 1.7 63.1  
## 3.5 19 1.7 64.8  
## 5.78571428571429 18 1.6 66.4  
## 5.42857142857143 18 1.6 68.0  
## 3.85714285714286 18 1.6 69.5  
## 5.85714285714286 17 1.5 71.1  
## 3.78571428571429 17 1.5 72.6  
## 3.71428571428571 17 1.5 74.1  
## 3.64285714285714 16 1.4 75.5  
## 5.5 14 1.2 76.7  
## 3.21428571428571 12 1.1 77.8  
## 7 11 1.0 78.7  
## 5.92857142857143 10 0.9 79.6  
## 3.42857142857143 10 0.9 80.5  
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## 2.57142857142857 10 0.9 84.0  
## 6.21428571428571 9 0.8 84.8  
## 6.07142857142857 9 0.8 85.6  
## 6.28571428571429 8 0.7 86.3  
## 3 8 0.7 87.0  
## 3.57142857142857 7 0.6 87.6  
## 2.85714285714286 7 0.6 88.3  
## 6.71428571428571 6 0.5 88.8  
## 6.35714285714286 6 0.5 89.3  
## 6.14285714285714 6 0.5 89.8  
## 2.92857142857143 6 0.5 90.4  
## 2.78571428571429 6 0.5 90.9  
## 6.64285714285714 5 0.4 91.4  
## 6.5 5 0.4 91.8  
## 3.07142857142857 5 0.4 92.2  
## 2.71428571428571 5 0.4 92.7  
## 2.64285714285714 5 0.4 93.1  
## 2.42857142857143 5 0.4 93.6  
## 6.57142857142857 4 0.4 93.9  
## 4.38461538461539 4 0.4 94.3  
## 6.92857142857143 3 0.3 94.5  
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## 4.15384615384615 3 0.3 95.3  
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## 2.07142857142857 3 0.3 95.9  
## 6.78571428571429 2 0.2 96.0  
## 4.76923076923077 2 0.2 96.2  
## 4.30769230769231 2 0.2 96.4  
## 4.23076923076923 2 0.2 96.6  
## 2.76923076923077 2 0.2 96.7  
## 2.14285714285714 2 0.2 96.9  
## 1.92857142857143 2 0.2 97.1  
## 1.85714285714286 2 0.2 97.3  
## 1.78571428571429 2 0.2 97.4  
## 6.85714285714286 1 0.1 97.5  
## 6.53846153846154 1 0.1 97.6  
## 6.1 1 0.1 97.7  
## 6.07692307692308 1 0.1 97.8  
## 5.58333333333333 1 0.1 97.9  
## 5.53846153846154 1 0.1 98.0  
## 5.46153846153846 1 0.1 98.1  
## 5.33333333333333 1 0.1 98.1  
## 4.84615384615385 1 0.1 98.2  
## 4.69230769230769 1 0.1 98.3  
## 4.61538461538461 1 0.1 98.4  
## 4.53846153846154 1 0.1 98.5  
## 4.46153846153846 1 0.1 98.6  
## 4.07692307692308 1 0.1 98.7  
## 3.90909090909091 1 0.1 98.8  
## 3.76923076923077 1 0.1 98.9  
## 3.53846153846154 1 0.1 98.9  
## 3.46153846153846 1 0.1 99.0  
## 3.23076923076923 1 0.1 99.1  
## 2.84615384615385 1 0.1 99.2  
## 2.5 1 0.1 99.3  
## 2.28571428571429 1 0.1 99.4  
## 2.21428571428571 1 0.1 99.5  
## 2 1 0.1 99.6  
## 1.71428571428571 1 0.1 99.6  
## 1.57142857142857 1 0.1 99.7  
## 1.42857142857143 1 0.1 99.8  
## 1.28571428571429 1 0.1 99.9  
## 1 1 0.1 100.0  
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##   
## [[5]]  
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## Frequency Percent Cum. percent  
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## 4.5 37 3.3 6.9  
## 4.57142857142857 36 3.2 10.1  
## 4.92857142857143 35 3.1 13.2  
## 5.21428571428571 34 3.0 16.2  
## 5.14285714285714 34 3.0 19.2  
## 4.64285714285714 32 2.8 22.0  
## 4.14285714285714 32 2.8 24.8  
## 5.07142857142857 31 2.7 27.5  
## 4.42857142857143 30 2.6 30.2  
## 4.21428571428571 30 2.6 32.8  
## 4 30 2.6 35.5  
## 4.78571428571429 29 2.6 38.0  
## 5.28571428571429 27 2.4 40.4  
## 4.28571428571429 27 2.4 42.8  
## 4.07142857142857 26 2.3 45.1  
## 5.57142857142857 24 2.1 47.2  
## 4.85714285714286 24 2.1 49.3  
## 4.71428571428571 24 2.1 51.5  
## 3.92857142857143 24 2.1 53.6  
## 6 23 2.0 55.6  
## 5.35714285714286 23 2.0 57.6  
## 4.35714285714286 23 2.0 59.7  
## 5.64285714285714 20 1.8 61.4  
## 5.71428571428571 19 1.7 63.1  
## 3.5 19 1.7 64.8  
## 5.78571428571429 18 1.6 66.4  
## 5.42857142857143 18 1.6 68.0  
## 3.85714285714286 18 1.6 69.5  
## 5.85714285714286 17 1.5 71.1  
## 3.78571428571429 17 1.5 72.6  
## 3.71428571428571 17 1.5 74.1  
## 3.64285714285714 16 1.4 75.5  
## 5.5 14 1.2 76.7  
## 3.21428571428571 12 1.1 77.8  
## 7 11 1.0 78.7  
## 5.92857142857143 10 0.9 79.6  
## 3.42857142857143 10 0.9 80.5  
## 3.35714285714286 10 0.9 81.4  
## 3.28571428571429 10 0.9 82.3  
## 3.14285714285714 10 0.9 83.1  
## 2.57142857142857 10 0.9 84.0  
## 6.21428571428571 9 0.8 84.8  
## 6.07142857142857 9 0.8 85.6  
## 6.28571428571429 8 0.7 86.3  
## 3 8 0.7 87.0  
## 3.57142857142857 7 0.6 87.6  
## 2.85714285714286 7 0.6 88.3  
## 6.71428571428571 6 0.5 88.8  
## 6.35714285714286 6 0.5 89.3  
## 6.14285714285714 6 0.5 89.8  
## 2.92857142857143 6 0.5 90.4  
## 2.78571428571429 6 0.5 90.9  
## 6.64285714285714 5 0.4 91.4  
## 6.5 5 0.4 91.8  
## 3.07142857142857 5 0.4 92.2  
## 2.71428571428571 5 0.4 92.7  
## 2.64285714285714 5 0.4 93.1  
## 2.42857142857143 5 0.4 93.6  
## 6.57142857142857 4 0.4 93.9  
## 4.38461538461539 4 0.4 94.3  
## 6.92857142857143 3 0.3 94.5  
## 6.42857142857143 3 0.3 94.8  
## 5.15384615384615 3 0.3 95.1  
## 4.15384615384615 3 0.3 95.3  
## 2.35714285714286 3 0.3 95.6  
## 2.07142857142857 3 0.3 95.9  
## 6.78571428571429 2 0.2 96.0  
## 4.76923076923077 2 0.2 96.2  
## 4.30769230769231 2 0.2 96.4  
## 4.23076923076923 2 0.2 96.6  
## 2.76923076923077 2 0.2 96.7  
## 2.14285714285714 2 0.2 96.9  
## 1.92857142857143 2 0.2 97.1  
## 1.85714285714286 2 0.2 97.3  
## 1.78571428571429 2 0.2 97.4  
## 6.85714285714286 1 0.1 97.5  
## 6.53846153846154 1 0.1 97.6  
## 6.1 1 0.1 97.7  
## 6.07692307692308 1 0.1 97.8  
## 5.58333333333333 1 0.1 97.9  
## 5.53846153846154 1 0.1 98.0  
## 5.46153846153846 1 0.1 98.1  
## 5.33333333333333 1 0.1 98.1  
## 4.84615384615385 1 0.1 98.2  
## 4.69230769230769 1 0.1 98.3  
## 4.61538461538461 1 0.1 98.4  
## 4.53846153846154 1 0.1 98.5  
## 4.46153846153846 1 0.1 98.6  
## 4.07692307692308 1 0.1 98.7  
## 3.90909090909091 1 0.1 98.8  
## 3.76923076923077 1 0.1 98.9  
## 3.53846153846154 1 0.1 98.9  
## 3.46153846153846 1 0.1 99.0  
## 3.23076923076923 1 0.1 99.1  
## 2.84615384615385 1 0.1 99.2  
## 2.5 1 0.1 99.3  
## 2.28571428571429 1 0.1 99.4  
## 2.21428571428571 1 0.1 99.5  
## 2 1 0.1 99.6  
## 1.71428571428571 1 0.1 99.6  
## 1.57142857142857 1 0.1 99.7  
## 1.42857142857143 1 0.1 99.8  
## 1.28571428571429 1 0.1 99.9  
## 1 1 0.1 100.0  
## Total 1133 100.0 100.0

with(mids\_obj, hist(ingroup\_identification, main = "Histogram of Ingroup Identification", xlab = "Ingroup Identification", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.5))



## call :  
## with.mids(data = mids\_obj, expr = hist(ingroup\_identification,   
## main = "Histogram of Ingroup Identification", xlab = "Ingroup Identification",   
## ylab = "Frequency", cex.lab = 1.2, cex.main = 1.5))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 3 9 16 50 78 132 218 227 186 133 48 33  
##   
## $density  
## [1] 0.005295675 0.015887026 0.028243601 0.088261253 0.137687555 0.233009709  
## [7] 0.384819064 0.400706090 0.328331862 0.234774934 0.084730803 0.058252427  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "ingroup\_identification"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[2]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 3 9 16 50 78 132 218 227 186 133 48 33  
##   
## $density  
## [1] 0.005295675 0.015887026 0.028243601 0.088261253 0.137687555 0.233009709  
## [7] 0.384819064 0.400706090 0.328331862 0.234774934 0.084730803 0.058252427  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "ingroup\_identification"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[3]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 3 9 16 50 78 132 218 227 186 133 48 33  
##   
## $density  
## [1] 0.005295675 0.015887026 0.028243601 0.088261253 0.137687555 0.233009709  
## [7] 0.384819064 0.400706090 0.328331862 0.234774934 0.084730803 0.058252427  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "ingroup\_identification"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[4]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 3 9 16 50 78 132 218 227 186 133 48 33  
##   
## $density  
## [1] 0.005295675 0.015887026 0.028243601 0.088261253 0.137687555 0.233009709  
## [7] 0.384819064 0.400706090 0.328331862 0.234774934 0.084730803 0.058252427  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "ingroup\_identification"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[5]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 3 9 16 50 78 132 218 227 186 133 48 33  
##   
## $density  
## [1] 0.005295675 0.015887026 0.028243601 0.088261253 0.137687555 0.233009709  
## [7] 0.384819064 0.400706090 0.328331862 0.234774934 0.084730803 0.058252427  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "ingroup\_identification"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"

with(mids\_obj, psych::describe(consumer\_intentions))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(consumer\_intentions))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.41 1.19 4.44 4.44 1.32 1.11 7 5.89 -0.16 -0.47 0.04  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.41 1.19 4.44 4.44 1.32 1.11 7 5.89 -0.16 -0.47 0.04  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.41 1.19 4.44 4.44 1.32 1.11 7 5.89 -0.16 -0.47 0.04  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.41 1.19 4.44 4.44 1.32 1.11 7 5.89 -0.16 -0.47 0.04  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.41 1.19 4.44 4.44 1.32 1.11 7 5.89 -0.16 -0.47 0.04

with(mids\_obj, sd(consumer\_intentions))

## call :  
## with.mids(data = mids\_obj, expr = sd(consumer\_intentions))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 1.188208  
##   
## [[2]]  
## [1] 1.188208  
##   
## [[3]]  
## [1] 1.188208  
##   
## [[4]]  
## [1] 1.188208  
##   
## [[5]]  
## [1] 1.188208

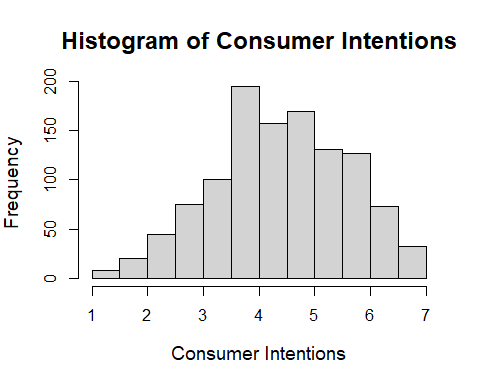
with(mids\_obj, mlv(consumer\_intentions, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(consumer\_intentions, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4  
##   
## [[2]]  
## [1] 4  
##   
## [[3]]  
## [1] 4  
##   
## [[4]]  
## [1] 4  
##   
## [[5]]  
## [1] 4

with(mids\_obj, tab1(consumer\_intentions, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(consumer\_intentions, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## consumer\_intentions :   
## Frequency Percent Cum. percent  
## 4 51 4.50 4.50  
## 4.66666666666667 39 3.44 7.94  
## 4.33333333333333 39 3.44 11.39  
## 4.55555555555556 38 3.35 14.74  
## 4.44444444444444 38 3.35 18.09  
## 4.22222222222222 38 3.35 21.45  
## 4.11111111111111 38 3.35 24.80  
## 3.88888888888889 38 3.35 28.16  
## 3.66666666666667 38 3.35 31.51  
## 5.22222222222222 37 3.27 34.77  
## 5.11111111111111 37 3.27 38.04  
## 5.55555555555556 36 3.18 41.22  
## 4.77777777777778 35 3.09 44.31  
## 3.55555555555556 33 2.91 47.22  
## 3.77777777777778 32 2.82 50.04  
## 5 30 2.65 52.69  
## 5.33333333333333 28 2.47 55.16  
## 5.77777777777778 27 2.38 57.55  
## 3.44444444444444 27 2.38 59.93  
## 4.88888888888889 25 2.21 62.14  
## 3.11111111111111 25 2.21 64.34  
## 6 24 2.12 66.46  
## 3.33333333333333 24 2.12 68.58  
## 6.11111111111111 23 2.03 70.61  
## 5.44444444444444 23 2.03 72.64  
## 5.66666666666667 22 1.94 74.58  
## 3.22222222222222 22 1.94 76.52  
## 6.22222222222222 20 1.77 78.29  
## 3 19 1.68 79.96  
## 2.77777777777778 17 1.50 81.47  
## 6.33333333333333 16 1.41 82.88  
## 5.88888888888889 16 1.41 84.29  
## 2.88888888888889 16 1.41 85.70  
## 2.66666666666667 14 1.24 86.94  
## 6.44444444444444 13 1.15 88.08  
## 2.44444444444444 12 1.06 89.14  
## 6.55555555555556 11 0.97 90.11  
## 2.22222222222222 11 0.97 91.09  
## 2.33333333333333 10 0.88 91.97  
## 2.11111111111111 10 0.88 92.85  
## 2.55555555555556 9 0.79 93.65  
## 6.77777777777778 7 0.62 94.26  
## 6.66666666666667 7 0.62 94.88  
## 1.66666666666667 5 0.44 95.32  
## 1.55555555555556 5 0.44 95.76  
## 7 4 0.35 96.12  
## 2 4 0.35 96.47  
## 1.88888888888889 4 0.35 96.82  
## 6.88888888888889 3 0.26 97.09  
## 1.44444444444444 3 0.26 97.35  
## 1.33333333333333 3 0.26 97.62  
## 5.375 2 0.18 97.79  
## 4.5 2 0.18 97.97  
## 2.375 2 0.18 98.15  
## 1.77777777777778 2 0.18 98.32  
## 6.14285714285714 1 0.09 98.41  
## 5.875 1 0.09 98.50  
## 5.71428571428571 1 0.09 98.59  
## 5.5 1 0.09 98.68  
## 5.42857142857143 1 0.09 98.76  
## 5.25 1 0.09 98.85  
## 5.125 1 0.09 98.94  
## 4.875 1 0.09 99.03  
## 4.83333333333333 1 0.09 99.12  
## 4.75 1 0.09 99.21  
## 4.375 1 0.09 99.29  
## 4.125 1 0.09 99.38  
## 3.875 1 0.09 99.47  
## 3.75 1 0.09 99.56  
## 3.625 1 0.09 99.65  
## 3.25 1 0.09 99.74  
## 3.125 1 0.09 99.82  
## 1.22222222222222 1 0.09 99.91  
## 1.11111111111111 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## consumer\_intentions :   
## Frequency Percent Cum. percent  
## 4 51 4.50 4.50  
## 4.66666666666667 39 3.44 7.94  
## 4.33333333333333 39 3.44 11.39  
## 4.55555555555556 38 3.35 14.74  
## 4.44444444444444 38 3.35 18.09  
## 4.22222222222222 38 3.35 21.45  
## 4.11111111111111 38 3.35 24.80  
## 3.88888888888889 38 3.35 28.16  
## 3.66666666666667 38 3.35 31.51  
## 5.22222222222222 37 3.27 34.77  
## 5.11111111111111 37 3.27 38.04  
## 5.55555555555556 36 3.18 41.22  
## 4.77777777777778 35 3.09 44.31  
## 3.55555555555556 33 2.91 47.22  
## 3.77777777777778 32 2.82 50.04  
## 5 30 2.65 52.69  
## 5.33333333333333 28 2.47 55.16  
## 5.77777777777778 27 2.38 57.55  
## 3.44444444444444 27 2.38 59.93  
## 4.88888888888889 25 2.21 62.14  
## 3.11111111111111 25 2.21 64.34  
## 6 24 2.12 66.46  
## 3.33333333333333 24 2.12 68.58  
## 6.11111111111111 23 2.03 70.61  
## 5.44444444444444 23 2.03 72.64  
## 5.66666666666667 22 1.94 74.58  
## 3.22222222222222 22 1.94 76.52  
## 6.22222222222222 20 1.77 78.29  
## 3 19 1.68 79.96  
## 2.77777777777778 17 1.50 81.47  
## 6.33333333333333 16 1.41 82.88  
## 5.88888888888889 16 1.41 84.29  
## 2.88888888888889 16 1.41 85.70  
## 2.66666666666667 14 1.24 86.94  
## 6.44444444444444 13 1.15 88.08  
## 2.44444444444444 12 1.06 89.14  
## 6.55555555555556 11 0.97 90.11  
## 2.22222222222222 11 0.97 91.09  
## 2.33333333333333 10 0.88 91.97  
## 2.11111111111111 10 0.88 92.85  
## 2.55555555555556 9 0.79 93.65  
## 6.77777777777778 7 0.62 94.26  
## 6.66666666666667 7 0.62 94.88  
## 1.66666666666667 5 0.44 95.32  
## 1.55555555555556 5 0.44 95.76  
## 7 4 0.35 96.12  
## 2 4 0.35 96.47  
## 1.88888888888889 4 0.35 96.82  
## 6.88888888888889 3 0.26 97.09  
## 1.44444444444444 3 0.26 97.35  
## 1.33333333333333 3 0.26 97.62  
## 5.375 2 0.18 97.79  
## 4.5 2 0.18 97.97  
## 2.375 2 0.18 98.15  
## 1.77777777777778 2 0.18 98.32  
## 6.14285714285714 1 0.09 98.41  
## 5.875 1 0.09 98.50  
## 5.71428571428571 1 0.09 98.59  
## 5.5 1 0.09 98.68  
## 5.42857142857143 1 0.09 98.76  
## 5.25 1 0.09 98.85  
## 5.125 1 0.09 98.94  
## 4.875 1 0.09 99.03  
## 4.83333333333333 1 0.09 99.12  
## 4.75 1 0.09 99.21  
## 4.375 1 0.09 99.29  
## 4.125 1 0.09 99.38  
## 3.875 1 0.09 99.47  
## 3.75 1 0.09 99.56  
## 3.625 1 0.09 99.65  
## 3.25 1 0.09 99.74  
## 3.125 1 0.09 99.82  
## 1.22222222222222 1 0.09 99.91  
## 1.11111111111111 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## consumer\_intentions :   
## Frequency Percent Cum. percent  
## 4 51 4.50 4.50  
## 4.66666666666667 39 3.44 7.94  
## 4.33333333333333 39 3.44 11.39  
## 4.55555555555556 38 3.35 14.74  
## 4.44444444444444 38 3.35 18.09  
## 4.22222222222222 38 3.35 21.45  
## 4.11111111111111 38 3.35 24.80  
## 3.88888888888889 38 3.35 28.16  
## 3.66666666666667 38 3.35 31.51  
## 5.22222222222222 37 3.27 34.77  
## 5.11111111111111 37 3.27 38.04  
## 5.55555555555556 36 3.18 41.22  
## 4.77777777777778 35 3.09 44.31  
## 3.55555555555556 33 2.91 47.22  
## 3.77777777777778 32 2.82 50.04  
## 5 30 2.65 52.69  
## 5.33333333333333 28 2.47 55.16  
## 5.77777777777778 27 2.38 57.55  
## 3.44444444444444 27 2.38 59.93  
## 4.88888888888889 25 2.21 62.14  
## 3.11111111111111 25 2.21 64.34  
## 6 24 2.12 66.46  
## 3.33333333333333 24 2.12 68.58  
## 6.11111111111111 23 2.03 70.61  
## 5.44444444444444 23 2.03 72.64  
## 5.66666666666667 22 1.94 74.58  
## 3.22222222222222 22 1.94 76.52  
## 6.22222222222222 20 1.77 78.29  
## 3 19 1.68 79.96  
## 2.77777777777778 17 1.50 81.47  
## 6.33333333333333 16 1.41 82.88  
## 5.88888888888889 16 1.41 84.29  
## 2.88888888888889 16 1.41 85.70  
## 2.66666666666667 14 1.24 86.94  
## 6.44444444444444 13 1.15 88.08  
## 2.44444444444444 12 1.06 89.14  
## 6.55555555555556 11 0.97 90.11  
## 2.22222222222222 11 0.97 91.09  
## 2.33333333333333 10 0.88 91.97  
## 2.11111111111111 10 0.88 92.85  
## 2.55555555555556 9 0.79 93.65  
## 6.77777777777778 7 0.62 94.26  
## 6.66666666666667 7 0.62 94.88  
## 1.66666666666667 5 0.44 95.32  
## 1.55555555555556 5 0.44 95.76  
## 7 4 0.35 96.12  
## 2 4 0.35 96.47  
## 1.88888888888889 4 0.35 96.82  
## 6.88888888888889 3 0.26 97.09  
## 1.44444444444444 3 0.26 97.35  
## 1.33333333333333 3 0.26 97.62  
## 5.375 2 0.18 97.79  
## 4.5 2 0.18 97.97  
## 2.375 2 0.18 98.15  
## 1.77777777777778 2 0.18 98.32  
## 6.14285714285714 1 0.09 98.41  
## 5.875 1 0.09 98.50  
## 5.71428571428571 1 0.09 98.59  
## 5.5 1 0.09 98.68  
## 5.42857142857143 1 0.09 98.76  
## 5.25 1 0.09 98.85  
## 5.125 1 0.09 98.94  
## 4.875 1 0.09 99.03  
## 4.83333333333333 1 0.09 99.12  
## 4.75 1 0.09 99.21  
## 4.375 1 0.09 99.29  
## 4.125 1 0.09 99.38  
## 3.875 1 0.09 99.47  
## 3.75 1 0.09 99.56  
## 3.625 1 0.09 99.65  
## 3.25 1 0.09 99.74  
## 3.125 1 0.09 99.82  
## 1.22222222222222 1 0.09 99.91  
## 1.11111111111111 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## consumer\_intentions :   
## Frequency Percent Cum. percent  
## 4 51 4.50 4.50  
## 4.66666666666667 39 3.44 7.94  
## 4.33333333333333 39 3.44 11.39  
## 4.55555555555556 38 3.35 14.74  
## 4.44444444444444 38 3.35 18.09  
## 4.22222222222222 38 3.35 21.45  
## 4.11111111111111 38 3.35 24.80  
## 3.88888888888889 38 3.35 28.16  
## 3.66666666666667 38 3.35 31.51  
## 5.22222222222222 37 3.27 34.77  
## 5.11111111111111 37 3.27 38.04  
## 5.55555555555556 36 3.18 41.22  
## 4.77777777777778 35 3.09 44.31  
## 3.55555555555556 33 2.91 47.22  
## 3.77777777777778 32 2.82 50.04  
## 5 30 2.65 52.69  
## 5.33333333333333 28 2.47 55.16  
## 5.77777777777778 27 2.38 57.55  
## 3.44444444444444 27 2.38 59.93  
## 4.88888888888889 25 2.21 62.14  
## 3.11111111111111 25 2.21 64.34  
## 6 24 2.12 66.46  
## 3.33333333333333 24 2.12 68.58  
## 6.11111111111111 23 2.03 70.61  
## 5.44444444444444 23 2.03 72.64  
## 5.66666666666667 22 1.94 74.58  
## 3.22222222222222 22 1.94 76.52  
## 6.22222222222222 20 1.77 78.29  
## 3 19 1.68 79.96  
## 2.77777777777778 17 1.50 81.47  
## 6.33333333333333 16 1.41 82.88  
## 5.88888888888889 16 1.41 84.29  
## 2.88888888888889 16 1.41 85.70  
## 2.66666666666667 14 1.24 86.94  
## 6.44444444444444 13 1.15 88.08  
## 2.44444444444444 12 1.06 89.14  
## 6.55555555555556 11 0.97 90.11  
## 2.22222222222222 11 0.97 91.09  
## 2.33333333333333 10 0.88 91.97  
## 2.11111111111111 10 0.88 92.85  
## 2.55555555555556 9 0.79 93.65  
## 6.77777777777778 7 0.62 94.26  
## 6.66666666666667 7 0.62 94.88  
## 1.66666666666667 5 0.44 95.32  
## 1.55555555555556 5 0.44 95.76  
## 7 4 0.35 96.12  
## 2 4 0.35 96.47  
## 1.88888888888889 4 0.35 96.82  
## 6.88888888888889 3 0.26 97.09  
## 1.44444444444444 3 0.26 97.35  
## 1.33333333333333 3 0.26 97.62  
## 5.375 2 0.18 97.79  
## 4.5 2 0.18 97.97  
## 2.375 2 0.18 98.15  
## 1.77777777777778 2 0.18 98.32  
## 6.14285714285714 1 0.09 98.41  
## 5.875 1 0.09 98.50  
## 5.71428571428571 1 0.09 98.59  
## 5.5 1 0.09 98.68  
## 5.42857142857143 1 0.09 98.76  
## 5.25 1 0.09 98.85  
## 5.125 1 0.09 98.94  
## 4.875 1 0.09 99.03  
## 4.83333333333333 1 0.09 99.12  
## 4.75 1 0.09 99.21  
## 4.375 1 0.09 99.29  
## 4.125 1 0.09 99.38  
## 3.875 1 0.09 99.47  
## 3.75 1 0.09 99.56  
## 3.625 1 0.09 99.65  
## 3.25 1 0.09 99.74  
## 3.125 1 0.09 99.82  
## 1.22222222222222 1 0.09 99.91  
## 1.11111111111111 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## consumer\_intentions :   
## Frequency Percent Cum. percent  
## 4 51 4.50 4.50  
## 4.66666666666667 39 3.44 7.94  
## 4.33333333333333 39 3.44 11.39  
## 4.55555555555556 38 3.35 14.74  
## 4.44444444444444 38 3.35 18.09  
## 4.22222222222222 38 3.35 21.45  
## 4.11111111111111 38 3.35 24.80  
## 3.88888888888889 38 3.35 28.16  
## 3.66666666666667 38 3.35 31.51  
## 5.22222222222222 37 3.27 34.77  
## 5.11111111111111 37 3.27 38.04  
## 5.55555555555556 36 3.18 41.22  
## 4.77777777777778 35 3.09 44.31  
## 3.55555555555556 33 2.91 47.22  
## 3.77777777777778 32 2.82 50.04  
## 5 30 2.65 52.69  
## 5.33333333333333 28 2.47 55.16  
## 5.77777777777778 27 2.38 57.55  
## 3.44444444444444 27 2.38 59.93  
## 4.88888888888889 25 2.21 62.14  
## 3.11111111111111 25 2.21 64.34  
## 6 24 2.12 66.46  
## 3.33333333333333 24 2.12 68.58  
## 6.11111111111111 23 2.03 70.61  
## 5.44444444444444 23 2.03 72.64  
## 5.66666666666667 22 1.94 74.58  
## 3.22222222222222 22 1.94 76.52  
## 6.22222222222222 20 1.77 78.29  
## 3 19 1.68 79.96  
## 2.77777777777778 17 1.50 81.47  
## 6.33333333333333 16 1.41 82.88  
## 5.88888888888889 16 1.41 84.29  
## 2.88888888888889 16 1.41 85.70  
## 2.66666666666667 14 1.24 86.94  
## 6.44444444444444 13 1.15 88.08  
## 2.44444444444444 12 1.06 89.14  
## 6.55555555555556 11 0.97 90.11  
## 2.22222222222222 11 0.97 91.09  
## 2.33333333333333 10 0.88 91.97  
## 2.11111111111111 10 0.88 92.85  
## 2.55555555555556 9 0.79 93.65  
## 6.77777777777778 7 0.62 94.26  
## 6.66666666666667 7 0.62 94.88  
## 1.66666666666667 5 0.44 95.32  
## 1.55555555555556 5 0.44 95.76  
## 7 4 0.35 96.12  
## 2 4 0.35 96.47  
## 1.88888888888889 4 0.35 96.82  
## 6.88888888888889 3 0.26 97.09  
## 1.44444444444444 3 0.26 97.35  
## 1.33333333333333 3 0.26 97.62  
## 5.375 2 0.18 97.79  
## 4.5 2 0.18 97.97  
## 2.375 2 0.18 98.15  
## 1.77777777777778 2 0.18 98.32  
## 6.14285714285714 1 0.09 98.41  
## 5.875 1 0.09 98.50  
## 5.71428571428571 1 0.09 98.59  
## 5.5 1 0.09 98.68  
## 5.42857142857143 1 0.09 98.76  
## 5.25 1 0.09 98.85  
## 5.125 1 0.09 98.94  
## 4.875 1 0.09 99.03  
## 4.83333333333333 1 0.09 99.12  
## 4.75 1 0.09 99.21  
## 4.375 1 0.09 99.29  
## 4.125 1 0.09 99.38  
## 3.875 1 0.09 99.47  
## 3.75 1 0.09 99.56  
## 3.625 1 0.09 99.65  
## 3.25 1 0.09 99.74  
## 3.125 1 0.09 99.82  
## 1.22222222222222 1 0.09 99.91  
## 1.11111111111111 1 0.09 100.00  
## Total 1133 100.00 100.00

with(mids\_obj, hist(consumer\_intentions, main = "Histogram of Consumer Intentions", xlab = "Consumer Intentions", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.5))



## call :  
## with.mids(data = mids\_obj, expr = hist(consumer\_intentions, main = "Histogram of Consumer Intentions",   
## xlab = "Consumer Intentions", ylab = "Frequency", cex.lab = 1.2,   
## cex.main = 1.5))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 8 20 45 75 100 195 157 170 131 127 73 32  
##   
## $density  
## [1] 0.01412180 0.03530450 0.07943513 0.13239188 0.17652251 0.34421889  
## [7] 0.27714034 0.30008826 0.23124448 0.22418358 0.12886143 0.05648720  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "consumer\_intentions"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[2]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 8 20 45 75 100 195 157 170 131 127 73 32  
##   
## $density  
## [1] 0.01412180 0.03530450 0.07943513 0.13239188 0.17652251 0.34421889  
## [7] 0.27714034 0.30008826 0.23124448 0.22418358 0.12886143 0.05648720  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "consumer\_intentions"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[3]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 8 20 45 75 100 195 157 170 131 127 73 32  
##   
## $density  
## [1] 0.01412180 0.03530450 0.07943513 0.13239188 0.17652251 0.34421889  
## [7] 0.27714034 0.30008826 0.23124448 0.22418358 0.12886143 0.05648720  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "consumer\_intentions"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[4]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 8 20 45 75 100 195 157 170 131 127 73 32  
##   
## $density  
## [1] 0.01412180 0.03530450 0.07943513 0.13239188 0.17652251 0.34421889  
## [7] 0.27714034 0.30008826 0.23124448 0.22418358 0.12886143 0.05648720  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "consumer\_intentions"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"  
##   
## [[5]]  
## $breaks  
## [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0  
##   
## $counts  
## [1] 8 20 45 75 100 195 157 170 131 127 73 32  
##   
## $density  
## [1] 0.01412180 0.03530450 0.07943513 0.13239188 0.17652251 0.34421889  
## [7] 0.27714034 0.30008826 0.23124448 0.22418358 0.12886143 0.05648720  
##   
## $mids  
## [1] 1.25 1.75 2.25 2.75 3.25 3.75 4.25 4.75 5.25 5.75 6.25 6.75  
##   
## $xname  
## [1] "consumer\_intentions"  
##   
## $equidist  
## [1] TRUE  
##   
## attr(,"class")  
## [1] "histogram"

Descriptive Statistics for Consumer Intentions

data\_R\_alt %>%  
 group\_by(framing\_condition, norm\_condition) %>%  
 summarise(mean = mean(consumer\_intentions),  
 sd = sd(consumer\_intentions)) %>%   
 knitr::kable(digits = 2)

| framing\_condition | norm\_condition | mean | sd |
| --- | --- | --- | --- |
| control\_framing | control\_norm | 4.52 | 1.31 |
| control\_framing | descriptive\_norm | 4.29 | 1.12 |
| control\_framing | convention\_norm | 4.42 | 1.31 |
| control\_framing | social\_norm | 4.27 | 1.26 |
| control\_framing | moral\_norm | 4.17 | 1.07 |
| pro\_env\_framing | control\_norm | 4.62 | 1.06 |
| pro\_env\_framing | descriptive\_norm | 4.40 | 1.14 |
| pro\_env\_framing | convention\_norm | 4.62 | 1.17 |
| pro\_env\_framing | social\_norm | 4.38 | 1.01 |
| pro\_env\_framing | moral\_norm | 4.41 | 1.23 |
| self\_enh\_framing | control\_norm | 4.26 | 1.28 |
| self\_enh\_framing | descriptive\_norm | 4.54 | 1.12 |
| self\_enh\_framing | convention\_norm | 4.58 | 1.25 |
| self\_enh\_framing | social\_norm | 4.24 | 1.23 |
| self\_enh\_framing | moral\_norm | 4.42 | 1.15 |

Descriptives for variables with missing data:

* Biospheric values
* Altruistic values
* Egoistic values
* Hedonic values
* Self-deceptive enhancement
* Impression management
* Age
* Gender
* Consumer behaviors

Values

data\_R\_alt %>%  
 dplyr::select(biospheric) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew kurtosis  
## biospheric 1 1119 5.85 1 6 5.97 1.11 1 7 6 -1.1 1.58  
## se  
## biospheric 0.03

with(mids\_obj, psych::describe(biospheric)) # describe

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(biospheric))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5.85 1 6 5.96 1.11 1 7 6 -1.08 1.52 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5.85 0.99 6 5.96 1.11 1 7 6 -1.08 1.55 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5.85 1 6 5.97 1.11 1 7 6 -1.1 1.59 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5.85 0.99 6 5.97 1.11 1 7 6 -1.1 1.58 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5.85 1 6 5.96 1.11 1 7 6 -1.11 1.62 0.03

with(mids\_obj, mean(biospheric)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(biospheric))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 5.847424  
##   
## [[2]]  
## [1] 5.845555  
##   
## [[3]]  
## [1] 5.847567  
##   
## [[4]]  
## [1] 5.853393  
##   
## [[5]]  
## [1] 5.845867

with(mids\_obj, sd(biospheric)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(biospheric))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.9960664  
##   
## [[2]]  
## [1] 0.9937431  
##   
## [[3]]  
## [1] 0.997342  
##   
## [[4]]  
## [1] 0.9932893  
##   
## [[5]]  
## [1] 0.9996857

with(mids\_obj, skew(biospheric)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(biospheric))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] -1.083458  
##   
## [[2]]  
## [1] -1.0846  
##   
## [[3]]  
## [1] -1.101412  
##   
## [[4]]  
## [1] -1.096966  
##   
## [[5]]  
## [1] -1.10635

with(mids\_obj, mlv(biospheric, method = "mfv")) # mode

## call :  
## with.mids(data = mids\_obj, expr = mlv(biospheric, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 7  
##   
## [[2]]  
## [1] 7  
##   
## [[3]]  
## [1] 7  
##   
## [[4]]  
## [1] 7  
##   
## [[5]]  
## [1] 7

with(mids\_obj, tab1(biospheric, decimal = 2, sort.group = "decreasing", graph = FALSE)) # frequency table

## call :  
## with.mids(data = mids\_obj, expr = tab1(biospheric, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## biospheric :   
## Frequency Percent Cum. percent  
## 7 186 16.42 16.42  
## 6 123 10.86 27.27  
## 6.75 116 10.24 37.51  
## 5.75 102 9.00 46.51  
## 6.5 99 8.74 55.25  
## 6.25 97 8.56 63.81  
## 5.5 90 7.94 71.76  
## 5 69 6.09 77.85  
## 5.25 64 5.65 83.50  
## 4.75 53 4.68 88.17  
## 4 26 2.29 90.47  
## 4.5 24 2.12 92.59  
## 4.25 20 1.77 94.35  
## 3.5 15 1.32 95.68  
## 3.75 13 1.15 96.82  
## 3.25 3 0.26 97.09  
## 3 3 0.26 97.35  
## 2.25 3 0.26 97.62  
## 1.75 3 0.26 97.88  
## 2.75 2 0.18 98.06  
## 2.5 2 0.18 98.23  
## 6.92978138523058 1 0.09 98.32  
## 6.87902477273205 1 0.09 98.41  
## 6.80962649255007 1 0.09 98.50  
## 6.55929259715776 1 0.09 98.59  
## 6.36164620762753 1 0.09 98.68  
## 6.16307005910934 1 0.09 98.76  
## 6.10331377419016 1 0.09 98.85  
## 5.66666666666667 1 0.09 98.94  
## 5.33333333333333 1 0.09 99.03  
## 5.28772305987155 1 0.09 99.12  
## 5.21653188317428 1 0.09 99.21  
## 4.96186063522694 1 0.09 99.29  
## 4.66666666666667 1 0.09 99.38  
## 4.48669580301916 1 0.09 99.47  
## 4.384969018679 1 0.09 99.56  
## 4.25085218217522 1 0.09 99.65  
## 4.0703199109846 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.5 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## biospheric :   
## Frequency Percent Cum. percent  
## 7 187 16.50 16.50  
## 6 123 10.86 27.36  
## 6.75 116 10.24 37.60  
## 5.75 102 9.00 46.60  
## 6.5 99 8.74 55.34  
## 6.25 97 8.56 63.90  
## 5.5 90 7.94 71.84  
## 5 69 6.09 77.93  
## 5.25 64 5.65 83.58  
## 4.75 53 4.68 88.26  
## 4 26 2.29 90.56  
## 4.5 24 2.12 92.67  
## 4.25 20 1.77 94.44  
## 3.5 15 1.32 95.76  
## 3.75 13 1.15 96.91  
## 3.25 3 0.26 97.18  
## 3 3 0.26 97.44  
## 2.25 3 0.26 97.71  
## 1.75 3 0.26 97.97  
## 2.75 2 0.18 98.15  
## 2.5 2 0.18 98.32  
## 6.18174205766271 1 0.09 98.41  
## 5.94892104732344 1 0.09 98.50  
## 5.80924448178034 1 0.09 98.59  
## 5.79386910581959 1 0.09 98.68  
## 5.77815614516152 1 0.09 98.76  
## 5.66666666666667 1 0.09 98.85  
## 5.51242526172064 1 0.09 98.94  
## 5.5123292043048 1 0.09 99.03  
## 5.33346566527752 1 0.09 99.12  
## 5.33333333333333 1 0.09 99.21  
## 5.30480524064616 1 0.09 99.29  
## 5.12486688283167 1 0.09 99.38  
## 4.9182749284418 1 0.09 99.47  
## 4.66666666666667 1 0.09 99.56  
## 4.2573814864859 1 0.09 99.65  
## 3.87121258668867 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.5 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## biospheric :   
## Frequency Percent Cum. percent  
## 7 187 16.50 16.50  
## 6 123 10.86 27.36  
## 6.75 116 10.24 37.60  
## 5.75 102 9.00 46.60  
## 6.5 99 8.74 55.34  
## 6.25 97 8.56 63.90  
## 5.5 90 7.94 71.84  
## 5 69 6.09 77.93  
## 5.25 64 5.65 83.58  
## 4.75 53 4.68 88.26  
## 4 26 2.29 90.56  
## 4.5 24 2.12 92.67  
## 4.25 20 1.77 94.44  
## 3.5 15 1.32 95.76  
## 3.75 13 1.15 96.91  
## 3.25 3 0.26 97.18  
## 3 3 0.26 97.44  
## 2.25 3 0.26 97.71  
## 1.75 3 0.26 97.97  
## 2.75 2 0.18 98.15  
## 2.5 2 0.18 98.32  
## 6.88760465848383 1 0.09 98.41  
## 6.73684967642757 1 0.09 98.50  
## 6.35765708699722 1 0.09 98.59  
## 6.13157939958817 1 0.09 98.68  
## 5.94616361239614 1 0.09 98.76  
## 5.92555975432308 1 0.09 98.85  
## 5.91043669267324 1 0.09 98.94  
## 5.66666666666667 1 0.09 99.03  
## 5.37726028859981 1 0.09 99.12  
## 5.33333333333333 1 0.09 99.21  
## 5.12311264436687 1 0.09 99.29  
## 5.0211835686128 1 0.09 99.38  
## 4.86473751665772 1 0.09 99.47  
## 4.84538125740963 1 0.09 99.56  
## 4.66666666666667 1 0.09 99.65  
## 2.49946270977989 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.5 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## biospheric :   
## Frequency Percent Cum. percent  
## 7 188 16.59 16.59  
## 6 123 10.86 27.45  
## 6.75 116 10.24 37.69  
## 5.75 102 9.00 46.69  
## 6.5 99 8.74 55.43  
## 6.25 97 8.56 63.99  
## 5.5 90 7.94 71.93  
## 5 69 6.09 78.02  
## 5.25 64 5.65 83.67  
## 4.75 53 4.68 88.35  
## 4 26 2.29 90.64  
## 4.5 24 2.12 92.76  
## 4.25 20 1.77 94.53  
## 3.5 15 1.32 95.85  
## 3.75 13 1.15 97.00  
## 3.25 3 0.26 97.26  
## 3 3 0.26 97.53  
## 2.25 3 0.26 97.79  
## 1.75 3 0.26 98.06  
## 2.75 2 0.18 98.23  
## 2.5 2 0.18 98.41  
## 6.78771723963602 1 0.09 98.50  
## 6.73952582810737 1 0.09 98.59  
## 6.71525713157358 1 0.09 98.68  
## 6.53223657923594 1 0.09 98.76  
## 6.30643667969298 1 0.09 98.85  
## 6.24723498439288 1 0.09 98.94  
## 5.93634005798045 1 0.09 99.03  
## 5.86812481781642 1 0.09 99.12  
## 5.66666666666667 1 0.09 99.21  
## 5.49313145359597 1 0.09 99.29  
## 5.33333333333333 1 0.09 99.38  
## 5.0831937463176 1 0.09 99.47  
## 4.93433089248037 1 0.09 99.56  
## 4.66666666666667 1 0.09 99.65  
## 4.58395510288557 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.5 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## biospheric :   
## Frequency Percent Cum. percent  
## 7 188 16.59 16.59  
## 6 123 10.86 27.45  
## 6.75 116 10.24 37.69  
## 5.75 102 9.00 46.69  
## 6.5 99 8.74 55.43  
## 6.25 97 8.56 63.99  
## 5.5 90 7.94 71.93  
## 5 69 6.09 78.02  
## 5.25 64 5.65 83.67  
## 4.75 53 4.68 88.35  
## 4 26 2.29 90.64  
## 4.5 24 2.12 92.76  
## 4.25 20 1.77 94.53  
## 3.5 15 1.32 95.85  
## 3.75 13 1.15 97.00  
## 3.25 3 0.26 97.26  
## 3 3 0.26 97.53  
## 2.25 3 0.26 97.79  
## 1.75 3 0.26 98.06  
## 2.75 2 0.18 98.23  
## 2.5 2 0.18 98.41  
## 6.70435240780637 1 0.09 98.50  
## 6.38164419458186 1 0.09 98.59  
## 6.10977386636095 1 0.09 98.68  
## 5.99376687610409 1 0.09 98.76  
## 5.66730443007167 1 0.09 98.85  
## 5.66666666666667 1 0.09 98.94  
## 5.36117016038618 1 0.09 99.03  
## 5.33333333333333 1 0.09 99.12  
## 5.23046642416669 1 0.09 99.21  
## 5.01393316526598 1 0.09 99.29  
## 4.95411235728259 1 0.09 99.38  
## 4.66666666666667 1 0.09 99.47  
## 4.65629279404582 1 0.09 99.56  
## 4.59945999773606 1 0.09 99.65  
## 2.02836995401422 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.5 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00

data\_R\_alt %>%  
 dplyr::select(altruistic) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew kurtosis  
## altruistic 1 1120 6.21 0.8 6.5 6.33 0.74 1 7 6 -1.92 6.19  
## se  
## altruistic 0.02

with(mids\_obj, psych::describe(altruistic))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(altruistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.21 0.8 6.5 6.33 0.74 1 7 6 -1.91 6.09 0.02  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.2 0.81 6.5 6.33 0.74 1 7 6 -1.89 5.97 0.02  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.21 0.81 6.5 6.33 0.74 1 7 6 -1.91 6.03 0.02  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.21 0.81 6.5 6.33 0.74 1 7 6 -1.9 6.03 0.02  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.21 0.81 6.5 6.33 0.74 1 7 6 -1.91 6.08 0.02

with(mids\_obj, mean(altruistic)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(altruistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 6.207499  
##   
## [[2]]  
## [1] 6.204064  
##   
## [[3]]  
## [1] 6.206447  
##   
## [[4]]  
## [1] 6.205038  
##   
## [[5]]  
## [1] 6.208258

with(mids\_obj, sd(altruistic)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(altruistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.8036216  
##   
## [[2]]  
## [1] 0.8070548  
##   
## [[3]]  
## [1] 0.8089419  
##   
## [[4]]  
## [1] 0.8053805  
##   
## [[5]]  
## [1] 0.805308

with(mids\_obj, skew(altruistic)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(altruistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] -1.905402  
##   
## [[2]]  
## [1] -1.890995  
##   
## [[3]]  
## [1] -1.910793  
##   
## [[4]]  
## [1] -1.897823  
##   
## [[5]]  
## [1] -1.909221

with(mids\_obj, mlv(altruistic, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(altruistic, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 7  
##   
## [[2]]  
## [1] 7  
##   
## [[3]]  
## [1] 7  
##   
## [[4]]  
## [1] 7  
##   
## [[5]]  
## [1] 7

with(mids\_obj, tab1(altruistic, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(altruistic, sort.group = "decreasing",   
## graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## altruistic :   
## Frequency Percent Cum. percent  
## 7 230 20.3 20.3  
## 6.75 187 16.5 36.8  
## 6.5 154 13.6 50.4  
## 6.25 133 11.7 62.1  
## 6 127 11.2 73.3  
## 5.75 92 8.1 81.5  
## 5.5 61 5.4 86.8  
## 5.25 42 3.7 90.6  
## 5 25 2.2 92.8  
## 4.75 15 1.3 94.1  
## 4 15 1.3 95.4  
## 4.5 11 1.0 96.4  
## 4.25 10 0.9 97.3  
## 3.75 3 0.3 97.5  
## 3 3 0.3 97.8  
## 3.5 2 0.2 98.0  
## 3.25 2 0.2 98.1  
## 1.75 2 0.2 98.3  
## 1 2 0.2 98.5  
## 6.79178909235135 1 0.1 98.6  
## 6.66666666666667 1 0.1 98.7  
## 6.6453201979484 1 0.1 98.8  
## 6.63367935173225 1 0.1 98.9  
## 6.3786269808463 1 0.1 98.9  
## 6.33333333333333 1 0.1 99.0  
## 6.30570865301973 1 0.1 99.1  
## 6.2540612617997 1 0.1 99.2  
## 6.07051428584437 1 0.1 99.3  
## 5.66666666666667 1 0.1 99.4  
## 5.46718804793044 1 0.1 99.5  
## 5.3713172678956 1 0.1 99.6  
## 5.31923597627802 1 0.1 99.6  
## 4.9041898245362 1 0.1 99.7  
## 4.53789598960417 1 0.1 99.8  
## 2.75 1 0.1 99.9  
## 2 1 0.1 100.0  
## Total 1133 100.0 100.0  
##   
## [[2]]  
## altruistic :   
## Frequency Percent Cum. percent  
## 7 230 20.3 20.3  
## 6.75 187 16.5 36.8  
## 6.5 154 13.6 50.4  
## 6.25 133 11.7 62.1  
## 6 127 11.2 73.3  
## 5.75 92 8.1 81.5  
## 5.5 61 5.4 86.8  
## 5.25 42 3.7 90.6  
## 5 25 2.2 92.8  
## 4.75 15 1.3 94.1  
## 4 15 1.3 95.4  
## 4.5 11 1.0 96.4  
## 4.25 10 0.9 97.3  
## 3.75 3 0.3 97.5  
## 3 3 0.3 97.8  
## 3.5 2 0.2 98.0  
## 3.25 2 0.2 98.1  
## 1.75 2 0.2 98.3  
## 1 2 0.2 98.5  
## 6.94439037770315 1 0.1 98.6  
## 6.66666666666667 1 0.1 98.7  
## 6.50322863783481 1 0.1 98.8  
## 6.33333333333333 1 0.1 98.9  
## 6.31541869332839 1 0.1 98.9  
## 6.09833157707145 1 0.1 99.0  
## 6.01264757681815 1 0.1 99.1  
## 5.73208555841241 1 0.1 99.2  
## 5.66666666666667 1 0.1 99.3  
## 5.58294535653561 1 0.1 99.4  
## 5.41716360838414 1 0.1 99.5  
## 5.11720139712041 1 0.1 99.6  
## 4.65369220558244 1 0.1 99.6  
## 4.3022284453622 1 0.1 99.7  
## 4.10889171253046 1 0.1 99.8  
## 2.75 1 0.1 99.9  
## 2 1 0.1 100.0  
## Total 1133 100.0 100.0  
##   
## [[3]]  
## altruistic :   
## Frequency Percent Cum. percent  
## 7 231 20.4 20.4  
## 6.75 187 16.5 36.9  
## 6.5 154 13.6 50.5  
## 6.25 133 11.7 62.2  
## 6 127 11.2 73.4  
## 5.75 92 8.1 81.6  
## 5.5 61 5.4 86.9  
## 5.25 42 3.7 90.6  
## 5 25 2.2 92.9  
## 4.75 15 1.3 94.2  
## 4 15 1.3 95.5  
## 4.5 11 1.0 96.5  
## 4.25 10 0.9 97.4  
## 3.75 3 0.3 97.6  
## 3 3 0.3 97.9  
## 3.5 2 0.2 98.1  
## 3.25 2 0.2 98.2  
## 1.75 2 0.2 98.4  
## 1 2 0.2 98.6  
## 6.99123083671407 1 0.1 98.7  
## 6.66666666666667 1 0.1 98.8  
## 6.65268934813443 1 0.1 98.9  
## 6.5990267272243 1 0.1 98.9  
## 6.44907266317307 1 0.1 99.0  
## 6.33333333333333 1 0.1 99.1  
## 6.24114283694161 1 0.1 99.2  
## 5.97165295309543 1 0.1 99.3  
## 5.68859124589085 1 0.1 99.4  
## 5.66666666666667 1 0.1 99.5  
## 5.4244657473107 1 0.1 99.6  
## 5.15381798996021 1 0.1 99.6  
## 4.05102743250767 1 0.1 99.7  
## 3.26503309635411 1 0.1 99.8  
## 2.75 1 0.1 99.9  
## 2 1 0.1 100.0  
## Total 1133 100.0 100.0  
##   
## [[4]]  
## altruistic :   
## Frequency Percent Cum. percent  
## 7 230 20.3 20.3  
## 6.75 187 16.5 36.8  
## 6.5 154 13.6 50.4  
## 6.25 133 11.7 62.1  
## 6 127 11.2 73.3  
## 5.75 92 8.1 81.5  
## 5.5 61 5.4 86.8  
## 5.25 42 3.7 90.6  
## 5 25 2.2 92.8  
## 4.75 15 1.3 94.1  
## 4 15 1.3 95.4  
## 4.5 11 1.0 96.4  
## 4.25 10 0.9 97.3  
## 3.75 3 0.3 97.5  
## 3 3 0.3 97.8  
## 3.5 2 0.2 98.0  
## 3.25 2 0.2 98.1  
## 1.75 2 0.2 98.3  
## 1 2 0.2 98.5  
## 6.82992612139809 1 0.1 98.6  
## 6.66666666666667 1 0.1 98.7  
## 6.60321846908572 1 0.1 98.8  
## 6.33333333333333 1 0.1 98.9  
## 6.15837379487025 1 0.1 98.9  
## 6.01247939211182 1 0.1 99.0  
## 5.97136063796703 1 0.1 99.1  
## 5.72070595519518 1 0.1 99.2  
## 5.7026168576053 1 0.1 99.3  
## 5.66666666666667 1 0.1 99.4  
## 5.53691227143609 1 0.1 99.5  
## 5.50162285939357 1 0.1 99.6  
## 5.33760985701658 1 0.1 99.6  
## 4.44680298993763 1 0.1 99.7  
## 4.06957695385655 1 0.1 99.8  
## 2.75 1 0.1 99.9  
## 2 1 0.1 100.0  
## Total 1133 100.0 100.0  
##   
## [[5]]  
## altruistic :   
## Frequency Percent Cum. percent  
## 7 230 20.3 20.3  
## 6.75 187 16.5 36.8  
## 6.5 154 13.6 50.4  
## 6.25 133 11.7 62.1  
## 6 127 11.2 73.3  
## 5.75 92 8.1 81.5  
## 5.5 61 5.4 86.8  
## 5.25 42 3.7 90.6  
## 5 25 2.2 92.8  
## 4.75 15 1.3 94.1  
## 4 15 1.3 95.4  
## 4.5 11 1.0 96.4  
## 4.25 10 0.9 97.3  
## 3.75 3 0.3 97.5  
## 3 3 0.3 97.8  
## 3.5 2 0.2 98.0  
## 3.25 2 0.2 98.1  
## 1.75 2 0.2 98.3  
## 1 2 0.2 98.5  
## 6.96730639734467 1 0.1 98.6  
## 6.86394859518316 1 0.1 98.7  
## 6.78093596972157 1 0.1 98.8  
## 6.70585329577694 1 0.1 98.9  
## 6.66666666666667 1 0.1 98.9  
## 6.56044209267293 1 0.1 99.0  
## 6.33333333333333 1 0.1 99.1  
## 6.09614031487932 1 0.1 99.2  
## 6.03342839612588 1 0.1 99.3  
## 5.86918758642979 1 0.1 99.4  
## 5.66666666666667 1 0.1 99.5  
## 5.48809683431106 1 0.1 99.6  
## 5.35790597877375 1 0.1 99.6  
## 5.03502588623205 1 0.1 99.7  
## 3.78099583561479 1 0.1 99.8  
## 2.75 1 0.1 99.9  
## 2 1 0.1 100.0  
## Total 1133 100.0 100.0

data\_R\_alt %>%  
 dplyr::select(egoistic) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew kurtosis  
## egoistic 1 1119 5 0.92 5 5.03 0.89 1.6 7 5.4 -0.4 0.3  
## se  
## egoistic 0.03

with(mids\_obj, psych::describe(egoistic))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(egoistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5 0.92 5 5.03 0.89 1.6 7 5.4 -0.39 0.29 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.99 0.92 5 5.02 0.89 1.6 7 5.4 -0.38 0.29 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5 0.92 5 5.03 0.89 1.6 7 5.4 -0.39 0.31 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 5 0.92 5 5.03 0.89 1.6 7 5.4 -0.4 0.3 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.99 0.92 5 5.03 0.89 1.6 7 5.4 -0.39 0.31 0.03

with(mids\_obj, mean(egoistic)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(egoistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4.996873  
##   
## [[2]]  
## [1] 4.993685  
##   
## [[3]]  
## [1] 4.998679  
##   
## [[4]]  
## [1] 4.998527  
##   
## [[5]]  
## [1] 4.994674

with(mids\_obj, sd(egoistic)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(egoistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.919563  
##   
## [[2]]  
## [1] 0.9197822  
##   
## [[3]]  
## [1] 0.9193252  
##   
## [[4]]  
## [1] 0.9231666  
##   
## [[5]]  
## [1] 0.9170121

with(mids\_obj, skew(egoistic)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(egoistic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] -0.3893127  
##   
## [[2]]  
## [1] -0.3826524  
##   
## [[3]]  
## [1] -0.3889441  
##   
## [[4]]  
## [1] -0.401046  
##   
## [[5]]  
## [1] -0.3947157

with(mids\_obj, mlv(egoistic, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(egoistic, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 5.2  
##   
## [[2]]  
## [1] 5.2  
##   
## [[3]]  
## [1] 5.2  
##   
## [[4]]  
## [1] 5.2  
##   
## [[5]]  
## [1] 5.2

with(mids\_obj, tab1(egoistic, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(egoistic, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## egoistic :   
## Frequency Percent Cum. percent  
## 5.2 113 9.97 9.97  
## 4.8 97 8.56 18.53  
## 5 92 8.12 26.65  
## 5.6 87 7.68 34.33  
## 5.4 87 7.68 42.01  
## 4.6 80 7.06 49.07  
## 5.8 79 6.97 56.05  
## 4.4 73 6.44 62.49  
## 6 61 5.38 67.87  
## 4 61 5.38 73.26  
## 4.2 51 4.50 77.76  
## 6.2 43 3.80 81.55  
## 3.8 34 3.00 84.55  
## 6.4 20 1.77 86.32  
## 3.6 20 1.77 88.08  
## 7 19 1.68 89.76  
## 6.6 18 1.59 91.35  
## 3.4 18 1.59 92.94  
## 3.2 14 1.24 94.17  
## 3 11 0.97 95.15  
## 6.8 10 0.88 96.03  
## 2.8 7 0.62 96.65  
## 2.6 7 0.62 97.26  
## 2.4 4 0.35 97.62  
## 2.2 3 0.26 97.88  
## 5.75 2 0.18 98.06  
## 5.25 2 0.18 98.23  
## 2 2 0.18 98.41  
## 6.79712320638804 1 0.09 98.50  
## 6.36382114625874 1 0.09 98.59  
## 6.31449887305136 1 0.09 98.68  
## 6.25 1 0.09 98.76  
## 5.50579654156247 1 0.09 98.85  
## 5.4741881170778 1 0.09 98.94  
## 5.31536053410331 1 0.09 99.03  
## 4.97552146933377 1 0.09 99.12  
## 4.80260402758526 1 0.09 99.21  
## 4.7827046779628 1 0.09 99.29  
## 4.71258978906075 1 0.09 99.38  
## 4.58876746375177 1 0.09 99.47  
## 4.57505410685397 1 0.09 99.56  
## 3.75 1 0.09 99.65  
## 3.74817307120729 1 0.09 99.74  
## 3.70118491260151 1 0.09 99.82  
## 1.8 1 0.09 99.91  
## 1.6 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## egoistic :   
## Frequency Percent Cum. percent  
## 5.2 113 9.97 9.97  
## 4.8 97 8.56 18.53  
## 5 92 8.12 26.65  
## 5.6 87 7.68 34.33  
## 5.4 87 7.68 42.01  
## 4.6 80 7.06 49.07  
## 5.8 79 6.97 56.05  
## 4.4 73 6.44 62.49  
## 6 61 5.38 67.87  
## 4 61 5.38 73.26  
## 4.2 51 4.50 77.76  
## 6.2 43 3.80 81.55  
## 3.8 34 3.00 84.55  
## 7 20 1.77 86.32  
## 6.4 20 1.77 88.08  
## 3.6 20 1.77 89.85  
## 6.6 18 1.59 91.44  
## 3.4 18 1.59 93.03  
## 3.2 14 1.24 94.26  
## 3 11 0.97 95.23  
## 6.8 10 0.88 96.12  
## 2.8 7 0.62 96.73  
## 2.6 7 0.62 97.35  
## 2.4 4 0.35 97.71  
## 2.2 3 0.26 97.97  
## 5.75 2 0.18 98.15  
## 5.25 2 0.18 98.32  
## 2 2 0.18 98.50  
## 6.25 1 0.09 98.59  
## 6.11721981732337 1 0.09 98.68  
## 5.47557803958604 1 0.09 98.76  
## 5.22249730317595 1 0.09 98.85  
## 5.18003448836389 1 0.09 98.94  
## 5.15793204092682 1 0.09 99.03  
## 4.93249825690546 1 0.09 99.12  
## 4.80945215309307 1 0.09 99.21  
## 4.36356149976051 1 0.09 99.29  
## 4.31684003070383 1 0.09 99.38  
## 3.98778917633806 1 0.09 99.47  
## 3.88690164285417 1 0.09 99.56  
## 3.87550184366028 1 0.09 99.65  
## 3.75 1 0.09 99.74  
## 3.71956055761558 1 0.09 99.82  
## 1.8 1 0.09 99.91  
## 1.6 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## egoistic :   
## Frequency Percent Cum. percent  
## 5.2 113 9.97 9.97  
## 4.8 97 8.56 18.53  
## 5 92 8.12 26.65  
## 5.6 87 7.68 34.33  
## 5.4 87 7.68 42.01  
## 4.6 80 7.06 49.07  
## 5.8 79 6.97 56.05  
## 4.4 73 6.44 62.49  
## 6 61 5.38 67.87  
## 4 61 5.38 73.26  
## 4.2 51 4.50 77.76  
## 6.2 43 3.80 81.55  
## 3.8 34 3.00 84.55  
## 7 20 1.77 86.32  
## 6.4 20 1.77 88.08  
## 3.6 20 1.77 89.85  
## 6.6 18 1.59 91.44  
## 3.4 18 1.59 93.03  
## 3.2 14 1.24 94.26  
## 3 11 0.97 95.23  
## 6.8 10 0.88 96.12  
## 2.8 7 0.62 96.73  
## 2.6 7 0.62 97.35  
## 2.4 4 0.35 97.71  
## 2.2 3 0.26 97.97  
## 5.75 2 0.18 98.15  
## 5.25 2 0.18 98.32  
## 2 2 0.18 98.50  
## 6.75505859571822 1 0.09 98.59  
## 6.25 1 0.09 98.68  
## 5.64123410617098 1 0.09 98.76  
## 5.59039691581114 1 0.09 98.85  
## 5.58894663338473 1 0.09 98.94  
## 5.46848812334389 1 0.09 99.03  
## 5.2477683928343 1 0.09 99.12  
## 5.10289206084564 1 0.09 99.21  
## 5.06456910692051 1 0.09 99.29  
## 4.97136204694412 1 0.09 99.38  
## 4.74975312409173 1 0.09 99.47  
## 4.39462385512312 1 0.09 99.56  
## 4.09481635068783 1 0.09 99.65  
## 4.03298832537944 1 0.09 99.74  
## 3.75 1 0.09 99.82  
## 1.8 1 0.09 99.91  
## 1.6 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## egoistic :   
## Frequency Percent Cum. percent  
## 5.2 113 9.97 9.97  
## 4.8 97 8.56 18.53  
## 5 92 8.12 26.65  
## 5.6 87 7.68 34.33  
## 5.4 87 7.68 42.01  
## 4.6 80 7.06 49.07  
## 5.8 79 6.97 56.05  
## 4.4 73 6.44 62.49  
## 6 61 5.38 67.87  
## 4 61 5.38 73.26  
## 4.2 51 4.50 77.76  
## 6.2 43 3.80 81.55  
## 3.8 34 3.00 84.55  
## 7 20 1.77 86.32  
## 6.4 20 1.77 88.08  
## 3.6 20 1.77 89.85  
## 6.6 18 1.59 91.44  
## 3.4 18 1.59 93.03  
## 3.2 14 1.24 94.26  
## 3 11 0.97 95.23  
## 6.8 10 0.88 96.12  
## 2.8 7 0.62 96.73  
## 2.6 7 0.62 97.35  
## 2.4 4 0.35 97.71  
## 2.2 3 0.26 97.97  
## 5.75 2 0.18 98.15  
## 5.25 2 0.18 98.32  
## 2 2 0.18 98.50  
## 6.44345868825567 1 0.09 98.59  
## 6.33799369100559 1 0.09 98.68  
## 6.25 1 0.09 98.76  
## 5.83681712343603 1 0.09 98.85  
## 5.76552761321545 1 0.09 98.94  
## 5.57151477133858 1 0.09 99.03  
## 5.48520304715209 1 0.09 99.12  
## 5.42946006487927 1 0.09 99.21  
## 5.303194308312 1 0.09 99.29  
## 5.09709685503995 1 0.09 99.38  
## 4.93994152954775 1 0.09 99.47  
## 4.18042671632251 1 0.09 99.56  
## 3.75 1 0.09 99.65  
## 3.59415337440164 1 0.09 99.74  
## 2.54650395298836 1 0.09 99.82  
## 1.8 1 0.09 99.91  
## 1.6 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## egoistic :   
## Frequency Percent Cum. percent  
## 5.2 113 9.97 9.97  
## 4.8 97 8.56 18.53  
## 5 92 8.12 26.65  
## 5.6 87 7.68 34.33  
## 5.4 87 7.68 42.01  
## 4.6 80 7.06 49.07  
## 5.8 79 6.97 56.05  
## 4.4 73 6.44 62.49  
## 6 61 5.38 67.87  
## 4 61 5.38 73.26  
## 4.2 51 4.50 77.76  
## 6.2 43 3.80 81.55  
## 3.8 34 3.00 84.55  
## 6.4 20 1.77 86.32  
## 3.6 20 1.77 88.08  
## 7 19 1.68 89.76  
## 6.6 18 1.59 91.35  
## 3.4 18 1.59 92.94  
## 3.2 14 1.24 94.17  
## 3 11 0.97 95.15  
## 6.8 10 0.88 96.03  
## 2.8 7 0.62 96.65  
## 2.6 7 0.62 97.26  
## 2.4 4 0.35 97.62  
## 2.2 3 0.26 97.88  
## 5.75 2 0.18 98.06  
## 5.25 2 0.18 98.23  
## 2 2 0.18 98.41  
## 6.25 1 0.09 98.50  
## 5.97937742541455 1 0.09 98.59  
## 5.80287783627645 1 0.09 98.68  
## 5.56917215463503 1 0.09 98.76  
## 5.56643194621507 1 0.09 98.85  
## 5.35344959860682 1 0.09 98.94  
## 5.11788660969016 1 0.09 99.03  
## 4.86632541540216 1 0.09 99.12  
## 4.84677956110952 1 0.09 99.21  
## 4.80818791442349 1 0.09 99.29  
## 4.70888258287177 1 0.09 99.38  
## 4.63597289574991 1 0.09 99.47  
## 4.0907151607966 1 0.09 99.56  
## 3.93927113184872 1 0.09 99.65  
## 3.88026658699065 1 0.09 99.74  
## 3.75 1 0.09 99.82  
## 1.8 1 0.09 99.91  
## 1.6 1 0.09 100.00  
## Total 1133 100.00 100.00

data\_R\_alt %>%  
 dplyr::select(hedonic) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew kurtosis  
## hedonic 1 1120 6.05 0.79 6.33 6.15 0.49 1 7 6 -1.45 3.66  
## se  
## hedonic 0.02

with(mids\_obj, psych::describe(hedonic))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(hedonic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.05 0.79 6.33 6.15 0.49 1 7 6 -1.44 3.65 0.02  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.05 0.8 6.33 6.14 0.49 1 7 6 -1.43 3.52 0.02  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.05 0.79 6.33 6.15 0.49 1 7 6 -1.44 3.64 0.02  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.06 0.79 6.33 6.15 0.49 1 7 6 -1.45 3.64 0.02  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 6.05 0.79 6.33 6.14 0.49 1 7 6 -1.43 3.63 0.02

with(mids\_obj, mean(hedonic)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(hedonic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 6.052762  
##   
## [[2]]  
## [1] 6.048393  
##   
## [[3]]  
## [1] 6.053002  
##   
## [[4]]  
## [1] 6.0557  
##   
## [[5]]  
## [1] 6.050441

with(mids\_obj, sd(hedonic)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(hedonic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.7925753  
##   
## [[2]]  
## [1] 0.7986227  
##   
## [[3]]  
## [1] 0.7927336  
##   
## [[4]]  
## [1] 0.7942988  
##   
## [[5]]  
## [1] 0.7925458

with(mids\_obj, skew(hedonic)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(hedonic))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] -1.43911  
##   
## [[2]]  
## [1] -1.432948  
##   
## [[3]]  
## [1] -1.438161  
##   
## [[4]]  
## [1] -1.445584  
##   
## [[5]]  
## [1] -1.434285

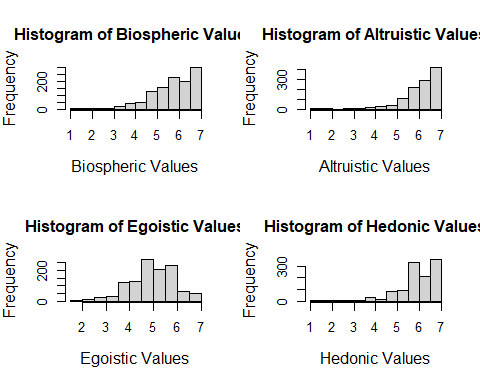
with(mids\_obj, mlv(hedonic, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(hedonic, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 6  
##   
## [[2]]  
## [1] 6  
##   
## [[3]]  
## [1] 6  
##   
## [[4]]  
## [1] 6  
##   
## [[5]]  
## [1] 6

with(mids\_obj, tab1(hedonic, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(hedonic, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## hedonic :   
## Frequency Percent Cum. percent  
## 6 219 19.33 19.33  
## 6.33333333333333 210 18.53 37.86  
## 6.66666666666667 200 17.65 55.52  
## 7 161 14.21 69.73  
## 5.66666666666667 107 9.44 79.17  
## 5.33333333333333 83 7.33 86.50  
## 5 61 5.38 91.88  
## 4.66666666666667 23 2.03 93.91  
## 4 20 1.77 95.68  
## 4.33333333333333 17 1.50 97.18  
## 3.66666666666667 7 0.62 97.79  
## 5.5 3 0.26 98.06  
## 3 3 0.26 98.32  
## 3.33333333333333 2 0.18 98.50  
## 6.98766472444624 1 0.09 98.59  
## 6.4310707289792 1 0.09 98.68  
## 6.19051962247406 1 0.09 98.76  
## 6.09172155535676 1 0.09 98.85  
## 5.96510792116445 1 0.09 98.94  
## 5.87686926927578 1 0.09 99.03  
## 5.77376324083589 1 0.09 99.12  
## 5.63295874813458 1 0.09 99.21  
## 5.48192080502699 1 0.09 99.29  
## 5.37098944906771 1 0.09 99.38  
## 5.35588887393381 1 0.09 99.47  
## 4.9536650511411 1 0.09 99.56  
## 3.5 1 0.09 99.65  
## 2.33333333333333 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.66666666666667 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## hedonic :   
## Frequency Percent Cum. percent  
## 6 219 19.33 19.33  
## 6.33333333333333 210 18.53 37.86  
## 6.66666666666667 200 17.65 55.52  
## 7 161 14.21 69.73  
## 5.66666666666667 107 9.44 79.17  
## 5.33333333333333 83 7.33 86.50  
## 5 61 5.38 91.88  
## 4.66666666666667 23 2.03 93.91  
## 4 20 1.77 95.68  
## 4.33333333333333 17 1.50 97.18  
## 3.66666666666667 7 0.62 97.79  
## 5.5 3 0.26 98.06  
## 3 3 0.26 98.32  
## 3.33333333333333 2 0.18 98.50  
## 6.53050280387373 1 0.09 98.59  
## 6.45274315432728 1 0.09 98.68  
## 6.21705522142883 1 0.09 98.76  
## 6.1919164937597 1 0.09 98.85  
## 6.18334013465023 1 0.09 98.94  
## 5.74768108352091 1 0.09 99.03  
## 5.34744355095188 1 0.09 99.12  
## 5.34620415023139 1 0.09 99.21  
## 5.00636868700048 1 0.09 99.29  
## 4.15212679924989 1 0.09 99.38  
## 4.01519382685956 1 0.09 99.47  
## 3.97218429590053 1 0.09 99.56  
## 3.5 1 0.09 99.65  
## 2.33333333333333 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.66666666666667 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## hedonic :   
## Frequency Percent Cum. percent  
## 6 219 19.33 19.33  
## 6.33333333333333 210 18.53 37.86  
## 6.66666666666667 200 17.65 55.52  
## 7 161 14.21 69.73  
## 5.66666666666667 107 9.44 79.17  
## 5.33333333333333 83 7.33 86.50  
## 5 61 5.38 91.88  
## 4.66666666666667 23 2.03 93.91  
## 4 20 1.77 95.68  
## 4.33333333333333 17 1.50 97.18  
## 3.66666666666667 7 0.62 97.79  
## 5.5 3 0.26 98.06  
## 3 3 0.26 98.32  
## 3.33333333333333 2 0.18 98.50  
## 6.80355671427972 1 0.09 98.59  
## 6.75699826460876 1 0.09 98.68  
## 6.64196121475046 1 0.09 98.76  
## 6.10397857057811 1 0.09 98.85  
## 5.8593821191511 1 0.09 98.94  
## 5.66515523195412 1 0.09 99.03  
## 5.64212740376489 1 0.09 99.12  
## 5.57915659116374 1 0.09 99.21  
## 5.4824353361415 1 0.09 99.29  
## 5.34871330170312 1 0.09 99.38  
## 5.27858775007824 1 0.09 99.47  
## 5.22297330468133 1 0.09 99.56  
## 3.5 1 0.09 99.65  
## 2.33333333333333 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.66666666666667 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## hedonic :   
## Frequency Percent Cum. percent  
## 6 219 19.33 19.33  
## 6.33333333333333 210 18.53 37.86  
## 6.66666666666667 200 17.65 55.52  
## 7 162 14.30 69.81  
## 5.66666666666667 107 9.44 79.26  
## 5.33333333333333 83 7.33 86.58  
## 5 61 5.38 91.97  
## 4.66666666666667 23 2.03 94.00  
## 4 20 1.77 95.76  
## 4.33333333333333 17 1.50 97.26  
## 3.66666666666667 7 0.62 97.88  
## 5.5 3 0.26 98.15  
## 3 3 0.26 98.41  
## 3.33333333333333 2 0.18 98.59  
## 6.92633969939972 1 0.09 98.68  
## 6.85456321524847 1 0.09 98.76  
## 6.74960569028908 1 0.09 98.85  
## 6.34104133376494 1 0.09 98.94  
## 6.31698122620457 1 0.09 99.03  
## 6.05702259985553 1 0.09 99.12  
## 5.98926634623782 1 0.09 99.21  
## 5.86437177463062 1 0.09 99.29  
## 5.80111579569265 1 0.09 99.38  
## 5.31181691874077 1 0.09 99.47  
## 4.22881272453528 1 0.09 99.56  
## 3.5 1 0.09 99.65  
## 2.33333333333333 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.66666666666667 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## hedonic :   
## Frequency Percent Cum. percent  
## 6 219 19.33 19.33  
## 6.33333333333333 210 18.53 37.86  
## 6.66666666666667 200 17.65 55.52  
## 7 160 14.12 69.64  
## 5.66666666666667 107 9.44 79.08  
## 5.33333333333333 83 7.33 86.41  
## 5 61 5.38 91.79  
## 4.66666666666667 23 2.03 93.82  
## 4 20 1.77 95.59  
## 4.33333333333333 17 1.50 97.09  
## 3.66666666666667 7 0.62 97.71  
## 5.5 3 0.26 97.97  
## 3 3 0.26 98.23  
## 3.33333333333333 2 0.18 98.41  
## 6.83846197290196 1 0.09 98.50  
## 6.35556601172077 1 0.09 98.59  
## 6.13149941283991 1 0.09 98.68  
## 6.09182271160275 1 0.09 98.76  
## 5.92295909888234 1 0.09 98.85  
## 5.79545866227425 1 0.09 98.94  
## 5.57289829879756 1 0.09 99.03  
## 5.52971411120854 1 0.09 99.12  
## 5.46075546441416 1 0.09 99.21  
## 5.3264300983184 1 0.09 99.29  
## 5.24778506006235 1 0.09 99.38  
## 5.2437351496709 1 0.09 99.47  
## 4.96600951616546 1 0.09 99.56  
## 3.5 1 0.09 99.65  
## 2.33333333333333 1 0.09 99.74  
## 2 1 0.09 99.82  
## 1.66666666666667 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00

# plotting multiple histograms  
imp5\_data <- complete\_data %>%   
 filter(.imp == 5)  
  
par(mfrow = c(2,2))  
  
hist(imp5\_data$biospheric, main = "Histogram of Biospheric Values", xlab = "Biospheric Values", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2) # histogram  
  
hist(imp5\_data$altruistic, main = "Histogram of Altruistic Values", xlab = "Altruistic Values", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)  
  
hist(imp5\_data$egoistic, main = "Histogram of Egoistic Values", xlab = "Egoistic Values", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)  
  
hist(imp5\_data$hedonic, main = "Histogram of Hedonic Values", xlab = "Hedonic Values", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)



Socially desirable responding & age

data\_R\_alt %>%  
 dplyr::select(self\_deceptive\_sdr) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew  
## self\_deceptive\_sdr 1 1118 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.14  
## kurtosis se  
## self\_deceptive\_sdr 0.14 0.03

with(mids\_obj, psych::describe(self\_deceptive\_sdr))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(self\_deceptive\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.14 0.14 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.86 3.75 3.71 0.74 1 6.62 5.62 0.15 0.13 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.16 0.18 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.85 3.75 3.71 0.74 1 6.62 5.62 0.12 0.18 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 3.72 0.86 3.75 3.71 0.74 1 6.62 5.62 0.15 0.15 0.03

with(mids\_obj, mean(self\_deceptive\_sdr)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(self\_deceptive\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 3.720768  
##   
## [[2]]  
## [1] 3.71826  
##   
## [[3]]  
## [1] 3.718362  
##   
## [[4]]  
## [1] 3.715641  
##   
## [[5]]  
## [1] 3.716131

with(mids\_obj, sd(self\_deceptive\_sdr)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(self\_deceptive\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.8527434  
##   
## [[2]]  
## [1] 0.8559867  
##   
## [[3]]  
## [1] 0.854895  
##   
## [[4]]  
## [1] 0.8541769  
##   
## [[5]]  
## [1] 0.8572747

with(mids\_obj, skew(self\_deceptive\_sdr)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(self\_deceptive\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.1404785  
##   
## [[2]]  
## [1] 0.152922  
##   
## [[3]]  
## [1] 0.1579775  
##   
## [[4]]  
## [1] 0.1151703  
##   
## [[5]]  
## [1] 0.1474294

with(mids\_obj, mlv(self\_deceptive\_sdr, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(self\_deceptive\_sdr, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4  
##   
## [[2]]  
## [1] 4  
##   
## [[3]]  
## [1] 4  
##   
## [[4]]  
## [1] 4  
##   
## [[5]]  
## [1] 4

with(mids\_obj, tab1(self\_deceptive\_sdr, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(self\_deceptive\_sdr, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## self\_deceptive\_sdr :   
## Frequency Percent Cum. percent  
## 4 80 7.06 7.06  
## 3.625 65 5.74 12.80  
## 4.125 64 5.65 18.45  
## 3.75 64 5.65 24.10  
## 3.375 63 5.56 29.66  
## 3.5 61 5.38 35.04  
## 3.875 59 5.21 40.25  
## 3.25 59 5.21 45.45  
## 3.125 55 4.85 50.31  
## 4.25 54 4.77 55.08  
## 3 51 4.50 59.58  
## 4.5 38 3.35 62.93  
## 4.375 34 3.00 65.93  
## 2.875 33 2.91 68.84  
## 4.625 31 2.74 71.58  
## 2.75 31 2.74 74.32  
## 4.75 29 2.56 76.88  
## 2.625 24 2.12 78.99  
## 5 22 1.94 80.94  
## 4.875 21 1.85 82.79  
## 2.5 18 1.59 84.38  
## 2.25 18 1.59 85.97  
## 2.375 16 1.41 87.38  
## 5.125 14 1.24 88.61  
## 5.25 13 1.15 89.76  
## 2.125 12 1.06 90.82  
## 5.375 11 0.97 91.79  
## 5.5 10 0.88 92.67  
## 2 10 0.88 93.56  
## 1.875 10 0.88 94.44  
## 6 5 0.44 94.88  
## 1.75 5 0.44 95.32  
## 5.875 4 0.35 95.68  
## 6.125 3 0.26 95.94  
## 5.625 3 0.26 96.20  
## 1.5 3 0.26 96.47  
## 6.375 2 0.18 96.65  
## 4.57142857142857 2 0.18 96.82  
## 3.28571428571429 2 0.18 97.00  
## 2.85714285714286 2 0.18 97.18  
## 6.625 1 0.09 97.26  
## 6.25 1 0.09 97.35  
## 5.624310412024 1 0.09 97.44  
## 5.3061165243935 1 0.09 97.53  
## 5.11669019819861 1 0.09 97.62  
## 4.71428571428571 1 0.09 97.71  
## 4.66666666666667 1 0.09 97.79  
## 4.42857142857143 1 0.09 97.88  
## 4.28571428571429 1 0.09 97.97  
## 4.14285714285714 1 0.09 98.06  
## 4.12769264753415 1 0.09 98.15  
## 4.05489756349172 1 0.09 98.23  
## 4.00770387696384 1 0.09 98.32  
## 3.94291720041255 1 0.09 98.41  
## 3.8 1 0.09 98.50  
## 3.79343770015113 1 0.09 98.59  
## 3.7466916647966 1 0.09 98.68  
## 3.71060242931548 1 0.09 98.76  
## 3.65117841877441 1 0.09 98.85  
## 3.57142857142857 1 0.09 98.94  
## 3.55477899164656 1 0.09 99.03  
## 3.35588160523951 1 0.09 99.12  
## 3.14285714285714 1 0.09 99.21  
## 3.14191154659671 1 0.09 99.29  
## 2.83333333333333 1 0.09 99.38  
## 2.71428571428571 1 0.09 99.47  
## 2.57142857142857 1 0.09 99.56  
## 2.48134430852987 1 0.09 99.65  
## 2.42857142857143 1 0.09 99.74  
## 2.28571428571429 1 0.09 99.82  
## 1.625 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## self\_deceptive\_sdr :   
## Frequency Percent Cum. percent  
## 4 80 7.06 7.06  
## 3.625 65 5.74 12.80  
## 4.125 64 5.65 18.45  
## 3.75 64 5.65 24.10  
## 3.375 63 5.56 29.66  
## 3.5 61 5.38 35.04  
## 3.875 59 5.21 40.25  
## 3.25 59 5.21 45.45  
## 3.125 55 4.85 50.31  
## 4.25 54 4.77 55.08  
## 3 51 4.50 59.58  
## 4.5 38 3.35 62.93  
## 4.375 34 3.00 65.93  
## 2.875 33 2.91 68.84  
## 4.625 31 2.74 71.58  
## 2.75 31 2.74 74.32  
## 4.75 29 2.56 76.88  
## 2.625 24 2.12 78.99  
## 5 22 1.94 80.94  
## 4.875 21 1.85 82.79  
## 2.5 18 1.59 84.38  
## 2.25 18 1.59 85.97  
## 2.375 16 1.41 87.38  
## 5.125 14 1.24 88.61  
## 5.25 13 1.15 89.76  
## 2.125 12 1.06 90.82  
## 5.375 11 0.97 91.79  
## 5.5 10 0.88 92.67  
## 2 10 0.88 93.56  
## 1.875 10 0.88 94.44  
## 6 5 0.44 94.88  
## 1.75 5 0.44 95.32  
## 5.875 4 0.35 95.68  
## 6.125 3 0.26 95.94  
## 5.625 3 0.26 96.20  
## 1.5 3 0.26 96.47  
## 6.375 2 0.18 96.65  
## 4.57142857142857 2 0.18 96.82  
## 3.28571428571429 2 0.18 97.00  
## 2.85714285714286 2 0.18 97.18  
## 6.625 1 0.09 97.26  
## 6.25 1 0.09 97.35  
## 6.11273914607466 1 0.09 97.44  
## 5.37298431210802 1 0.09 97.53  
## 4.97162005909085 1 0.09 97.62  
## 4.71428571428571 1 0.09 97.71  
## 4.66666666666667 1 0.09 97.79  
## 4.54259799726307 1 0.09 97.88  
## 4.42857142857143 1 0.09 97.97  
## 4.29406975981429 1 0.09 98.06  
## 4.28571428571429 1 0.09 98.15  
## 4.25918666290272 1 0.09 98.23  
## 4.14285714285714 1 0.09 98.32  
## 3.8 1 0.09 98.41  
## 3.57142857142857 1 0.09 98.50  
## 3.43028181940957 1 0.09 98.59  
## 3.34058319068107 1 0.09 98.68  
## 3.28113724953404 1 0.09 98.76  
## 3.24038640560865 1 0.09 98.85  
## 3.17383894783466 1 0.09 98.94  
## 3.14285714285714 1 0.09 99.03  
## 3.07372866177579 1 0.09 99.12  
## 2.83333333333333 1 0.09 99.21  
## 2.79520138305927 1 0.09 99.29  
## 2.71428571428571 1 0.09 99.38  
## 2.57142857142857 1 0.09 99.47  
## 2.52736623167122 1 0.09 99.56  
## 2.42857142857143 1 0.09 99.65  
## 2.35832890306135 1 0.09 99.74  
## 2.28571428571429 1 0.09 99.82  
## 1.625 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## self\_deceptive\_sdr :   
## Frequency Percent Cum. percent  
## 4 80 7.06 7.06  
## 3.625 65 5.74 12.80  
## 4.125 64 5.65 18.45  
## 3.75 64 5.65 24.10  
## 3.375 63 5.56 29.66  
## 3.5 61 5.38 35.04  
## 3.875 59 5.21 40.25  
## 3.25 59 5.21 45.45  
## 3.125 55 4.85 50.31  
## 4.25 54 4.77 55.08  
## 3 51 4.50 59.58  
## 4.5 38 3.35 62.93  
## 4.375 34 3.00 65.93  
## 2.875 33 2.91 68.84  
## 4.625 31 2.74 71.58  
## 2.75 31 2.74 74.32  
## 4.75 29 2.56 76.88  
## 2.625 24 2.12 78.99  
## 5 22 1.94 80.94  
## 4.875 21 1.85 82.79  
## 2.5 18 1.59 84.38  
## 2.25 18 1.59 85.97  
## 2.375 16 1.41 87.38  
## 5.125 14 1.24 88.61  
## 5.25 13 1.15 89.76  
## 2.125 12 1.06 90.82  
## 5.375 11 0.97 91.79  
## 5.5 10 0.88 92.67  
## 2 10 0.88 93.56  
## 1.875 10 0.88 94.44  
## 6 5 0.44 94.88  
## 1.75 5 0.44 95.32  
## 5.875 4 0.35 95.68  
## 6.125 3 0.26 95.94  
## 5.625 3 0.26 96.20  
## 1.5 3 0.26 96.47  
## 6.375 2 0.18 96.65  
## 4.57142857142857 2 0.18 96.82  
## 3.28571428571429 2 0.18 97.00  
## 2.85714285714286 2 0.18 97.18  
## 6.625 1 0.09 97.26  
## 6.50569581386731 1 0.09 97.35  
## 6.25 1 0.09 97.44  
## 4.80731040396952 1 0.09 97.53  
## 4.71428571428571 1 0.09 97.62  
## 4.66666666666667 1 0.09 97.71  
## 4.42857142857143 1 0.09 97.79  
## 4.42587741780078 1 0.09 97.88  
## 4.33604920869772 1 0.09 97.97  
## 4.28571428571429 1 0.09 98.06  
## 4.19844705209518 1 0.09 98.15  
## 4.14285714285714 1 0.09 98.23  
## 3.9246571270191 1 0.09 98.32  
## 3.84417574075 1 0.09 98.41  
## 3.8 1 0.09 98.50  
## 3.71299017320475 1 0.09 98.59  
## 3.67433474671761 1 0.09 98.68  
## 3.57142857142857 1 0.09 98.76  
## 3.37978065203771 1 0.09 98.85  
## 3.15594357189421 1 0.09 98.94  
## 3.14285714285714 1 0.09 99.03  
## 3.09923387775195 1 0.09 99.12  
## 2.83333333333333 1 0.09 99.21  
## 2.77132367994572 1 0.09 99.29  
## 2.71428571428571 1 0.09 99.38  
## 2.65316688050164 1 0.09 99.47  
## 2.57142857142857 1 0.09 99.56  
## 2.42857142857143 1 0.09 99.65  
## 2.40139009051198 1 0.09 99.74  
## 2.28571428571429 1 0.09 99.82  
## 1.625 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## self\_deceptive\_sdr :   
## Frequency Percent Cum. percent  
## 4 80 7.06 7.06  
## 3.625 65 5.74 12.80  
## 4.125 64 5.65 18.45  
## 3.75 64 5.65 24.10  
## 3.375 63 5.56 29.66  
## 3.5 61 5.38 35.04  
## 3.875 59 5.21 40.25  
## 3.25 59 5.21 45.45  
## 3.125 55 4.85 50.31  
## 4.25 54 4.77 55.08  
## 3 51 4.50 59.58  
## 4.5 38 3.35 62.93  
## 4.375 34 3.00 65.93  
## 2.875 33 2.91 68.84  
## 4.625 31 2.74 71.58  
## 2.75 31 2.74 74.32  
## 4.75 29 2.56 76.88  
## 2.625 24 2.12 78.99  
## 5 22 1.94 80.94  
## 4.875 21 1.85 82.79  
## 2.5 18 1.59 84.38  
## 2.25 18 1.59 85.97  
## 2.375 16 1.41 87.38  
## 5.125 14 1.24 88.61  
## 5.25 13 1.15 89.76  
## 2.125 12 1.06 90.82  
## 5.375 11 0.97 91.79  
## 5.5 10 0.88 92.67  
## 2 10 0.88 93.56  
## 1.875 10 0.88 94.44  
## 6 5 0.44 94.88  
## 1.75 5 0.44 95.32  
## 5.875 4 0.35 95.68  
## 6.125 3 0.26 95.94  
## 5.625 3 0.26 96.20  
## 1.5 3 0.26 96.47  
## 6.375 2 0.18 96.65  
## 4.57142857142857 2 0.18 96.82  
## 3.28571428571429 2 0.18 97.00  
## 2.85714285714286 2 0.18 97.18  
## 1 2 0.18 97.35  
## 6.625 1 0.09 97.44  
## 6.25 1 0.09 97.53  
## 5.10450422601013 1 0.09 97.62  
## 4.71428571428571 1 0.09 97.71  
## 4.66666666666667 1 0.09 97.79  
## 4.56959761434867 1 0.09 97.88  
## 4.42857142857143 1 0.09 97.97  
## 4.28571428571429 1 0.09 98.06  
## 4.23606432658331 1 0.09 98.15  
## 4.20969607380336 1 0.09 98.23  
## 4.14285714285714 1 0.09 98.32  
## 4.06851060701118 1 0.09 98.41  
## 4.06706215505538 1 0.09 98.50  
## 3.93633590391117 1 0.09 98.59  
## 3.8 1 0.09 98.68  
## 3.79066790130389 1 0.09 98.76  
## 3.57848849592096 1 0.09 98.85  
## 3.57142857142857 1 0.09 98.94  
## 3.4145293232622 1 0.09 99.03  
## 3.14285714285714 1 0.09 99.12  
## 3.07780626313026 1 0.09 99.21  
## 3.01709439066009 1 0.09 99.29  
## 2.98485564509432 1 0.09 99.38  
## 2.83333333333333 1 0.09 99.47  
## 2.75220006883312 1 0.09 99.56  
## 2.71428571428571 1 0.09 99.65  
## 2.57142857142857 1 0.09 99.74  
## 2.42857142857143 1 0.09 99.82  
## 2.28571428571429 1 0.09 99.91  
## 1.625 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## self\_deceptive\_sdr :   
## Frequency Percent Cum. percent  
## 4 80 7.06 7.06  
## 3.625 65 5.74 12.80  
## 4.125 64 5.65 18.45  
## 3.75 64 5.65 24.10  
## 3.375 63 5.56 29.66  
## 3.5 61 5.38 35.04  
## 3.875 59 5.21 40.25  
## 3.25 59 5.21 45.45  
## 3.125 55 4.85 50.31  
## 4.25 54 4.77 55.08  
## 3 51 4.50 59.58  
## 4.5 38 3.35 62.93  
## 4.375 34 3.00 65.93  
## 2.875 33 2.91 68.84  
## 4.625 31 2.74 71.58  
## 2.75 31 2.74 74.32  
## 4.75 29 2.56 76.88  
## 2.625 24 2.12 78.99  
## 5 22 1.94 80.94  
## 4.875 21 1.85 82.79  
## 2.5 18 1.59 84.38  
## 2.25 18 1.59 85.97  
## 2.375 16 1.41 87.38  
## 5.125 14 1.24 88.61  
## 5.25 13 1.15 89.76  
## 2.125 12 1.06 90.82  
## 5.375 11 0.97 91.79  
## 5.5 10 0.88 92.67  
## 2 10 0.88 93.56  
## 1.875 10 0.88 94.44  
## 6 5 0.44 94.88  
## 1.75 5 0.44 95.32  
## 5.875 4 0.35 95.68  
## 6.125 3 0.26 95.94  
## 5.625 3 0.26 96.20  
## 1.5 3 0.26 96.47  
## 6.375 2 0.18 96.65  
## 4.57142857142857 2 0.18 96.82  
## 3.28571428571429 2 0.18 97.00  
## 2.85714285714286 2 0.18 97.18  
## 6.625 1 0.09 97.26  
## 6.31070077589939 1 0.09 97.35  
## 6.25 1 0.09 97.44  
## 4.99401669699261 1 0.09 97.53  
## 4.71428571428571 1 0.09 97.62  
## 4.66666666666667 1 0.09 97.71  
## 4.60490976237376 1 0.09 97.79  
## 4.56092884200801 1 0.09 97.88  
## 4.42857142857143 1 0.09 97.97  
## 4.28571428571429 1 0.09 98.06  
## 4.16655038172036 1 0.09 98.15  
## 4.14285714285714 1 0.09 98.23  
## 3.8 1 0.09 98.32  
## 3.78167601298532 1 0.09 98.41  
## 3.57142857142857 1 0.09 98.50  
## 3.41268369972937 1 0.09 98.59  
## 3.3925290673921 1 0.09 98.68  
## 3.31865684274056 1 0.09 98.76  
## 3.27539125862613 1 0.09 98.85  
## 3.16060592688049 1 0.09 98.94  
## 3.14285714285714 1 0.09 99.03  
## 3.05009402896496 1 0.09 99.12  
## 2.83333333333333 1 0.09 99.21  
## 2.71428571428571 1 0.09 99.29  
## 2.57142857142857 1 0.09 99.38  
## 2.44166274632347 1 0.09 99.47  
## 2.42857142857143 1 0.09 99.56  
## 2.28571428571429 1 0.09 99.65  
## 2.10912412425898 1 0.09 99.74  
## 1.78316784380028 1 0.09 99.82  
## 1.625 1 0.09 99.91  
## 1 1 0.09 100.00  
## Total 1133 100.00 100.00

data\_R\_alt %>%  
 dplyr::select(impress\_manag\_sdr) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew  
## impress\_manag\_sdr 1 1119 4 0.85 4 3.98 0.74 1.5 7 5.5 0.25  
## kurtosis se  
## impress\_manag\_sdr 0.16 0.03

with(mids\_obj, psych::describe(impress\_manag\_sdr))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(impress\_manag\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.99 0.74 1.5 7 5.5 0.26 0.15 0.03  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.98 0.74 1.5 7 5.5 0.26 0.16 0.03  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4.01 0.85 4 3.99 0.74 1.5 7 5.5 0.25 0.15 0.03  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4 0.85 4 3.98 0.74 1.5 7 5.5 0.24 0.15 0.03  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 4 0.85 4 3.98 0.74 1.5 7 5.5 0.26 0.17 0.03

with(mids\_obj, mean(impress\_manag\_sdr)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(impress\_manag\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4.011393  
##   
## [[2]]  
## [1] 4.005106  
##   
## [[3]]  
## [1] 4.008733  
##   
## [[4]]  
## [1] 4.003501  
##   
## [[5]]  
## [1] 4.002456

with(mids\_obj, sd(impress\_manag\_sdr)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(impress\_manag\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.8514254  
##   
## [[2]]  
## [1] 0.8497515  
##   
## [[3]]  
## [1] 0.8484286  
##   
## [[4]]  
## [1] 0.8483213  
##   
## [[5]]  
## [1] 0.8461046

with(mids\_obj, skew(impress\_manag\_sdr)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(impress\_manag\_sdr))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 0.2552199  
##   
## [[2]]  
## [1] 0.2569881  
##   
## [[3]]  
## [1] 0.2457296  
##   
## [[4]]  
## [1] 0.2447656  
##   
## [[5]]  
## [1] 0.2553614

with(mids\_obj, mlv(impress\_manag\_sdr, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(impress\_manag\_sdr, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4  
##   
## [[2]]  
## [1] 4  
##   
## [[3]]  
## [1] 4  
##   
## [[4]]  
## [1] 4  
##   
## [[5]]  
## [1] 4

with(mids\_obj, tab1(impress\_manag\_sdr, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(impress\_manag\_sdr, decimal = 2,   
## sort.group = "decreasing", graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## impress\_manag\_sdr :   
## Frequency Percent Cum. percent  
## 4 82 7.24 7.24  
## 3.875 77 6.80 14.03  
## 3.75 70 6.18 20.21  
## 4.125 64 5.65 25.86  
## 4.375 57 5.03 30.89  
## 4.25 56 4.94 35.83  
## 3.5 56 4.94 40.78  
## 3.625 55 4.85 45.63  
## 3.375 55 4.85 50.49  
## 4.5 49 4.32 54.81  
## 4.75 44 3.88 58.69  
## 3.125 40 3.53 62.22  
## 4.625 38 3.35 65.58  
## 3.25 38 3.35 68.93  
## 2.875 35 3.09 72.02  
## 5.125 30 2.65 74.67  
## 2.75 28 2.47 77.14  
## 5 27 2.38 79.52  
## 3 27 2.38 81.91  
## 4.875 26 2.29 84.20  
## 5.25 19 1.68 85.88  
## 5.375 18 1.59 87.47  
## 5.5 17 1.50 88.97  
## 2.625 16 1.41 90.38  
## 2.5 13 1.15 91.53  
## 5.625 12 1.06 92.59  
## 5.75 8 0.71 93.29  
## 2.25 7 0.62 93.91  
## 6.125 6 0.53 94.44  
## 2.125 6 0.53 94.97  
## 5.875 5 0.44 95.41  
## 2.375 5 0.44 95.85  
## 6 4 0.35 96.20  
## 1.875 4 0.35 96.56  
## 6.375 3 0.26 96.82  
## 4.28571428571429 3 0.26 97.09  
## 7 2 0.18 97.26  
## 2 2 0.18 97.44  
## 6.75 1 0.09 97.53  
## 6.625 1 0.09 97.62  
## 6.5 1 0.09 97.71  
## 6.25 1 0.09 97.79  
## 6.23332392933998 1 0.09 97.88  
## 5.95080084364985 1 0.09 97.97  
## 5.62434135219697 1 0.09 98.06  
## 5.57142857142857 1 0.09 98.15  
## 5.49139378252466 1 0.09 98.23  
## 4.95878143492084 1 0.09 98.32  
## 4.57142857142857 1 0.09 98.41  
## 4.55898208829444 1 0.09 98.50  
## 4.54072339999749 1 0.09 98.59  
## 4.52629739989457 1 0.09 98.68  
## 4.52189367995753 1 0.09 98.76  
## 4.44630085033426 1 0.09 98.85  
## 4.42857142857143 1 0.09 98.94  
## 4.2 1 0.09 99.03  
## 3.89866034484001 1 0.09 99.12  
## 3.83333333333333 1 0.09 99.21  
## 3.76940640021116 1 0.09 99.29  
## 3.57142857142857 1 0.09 99.38  
## 3.36879487922451 1 0.09 99.47  
## 3.33333333333333 1 0.09 99.56  
## 3.31238856531072 1 0.09 99.65  
## 3.14285714285714 1 0.09 99.74  
## 2.57142857142857 1 0.09 99.82  
## 1.75 1 0.09 99.91  
## 1.5 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## impress\_manag\_sdr :   
## Frequency Percent Cum. percent  
## 4 82 7.24 7.24  
## 3.875 77 6.80 14.03  
## 3.75 70 6.18 20.21  
## 4.125 64 5.65 25.86  
## 4.375 57 5.03 30.89  
## 4.25 56 4.94 35.83  
## 3.5 56 4.94 40.78  
## 3.625 55 4.85 45.63  
## 3.375 55 4.85 50.49  
## 4.5 49 4.32 54.81  
## 4.75 44 3.88 58.69  
## 3.125 40 3.53 62.22  
## 4.625 38 3.35 65.58  
## 3.25 38 3.35 68.93  
## 2.875 35 3.09 72.02  
## 5.125 30 2.65 74.67  
## 2.75 28 2.47 77.14  
## 5 27 2.38 79.52  
## 3 27 2.38 81.91  
## 4.875 26 2.29 84.20  
## 5.25 19 1.68 85.88  
## 5.375 18 1.59 87.47  
## 5.5 17 1.50 88.97  
## 2.625 16 1.41 90.38  
## 2.5 13 1.15 91.53  
## 5.625 12 1.06 92.59  
## 5.75 8 0.71 93.29  
## 2.25 7 0.62 93.91  
## 6.125 6 0.53 94.44  
## 2.125 6 0.53 94.97  
## 5.875 5 0.44 95.41  
## 2.375 5 0.44 95.85  
## 6 4 0.35 96.20  
## 1.875 4 0.35 96.56  
## 6.375 3 0.26 96.82  
## 4.28571428571429 3 0.26 97.09  
## 7 2 0.18 97.26  
## 2 2 0.18 97.44  
## 6.75 1 0.09 97.53  
## 6.625 1 0.09 97.62  
## 6.5 1 0.09 97.71  
## 6.25 1 0.09 97.79  
## 6.07751634096769 1 0.09 97.88  
## 5.82978083088343 1 0.09 97.97  
## 5.57142857142857 1 0.09 98.06  
## 4.87056478438115 1 0.09 98.15  
## 4.64949284517357 1 0.09 98.23  
## 4.63853137177987 1 0.09 98.32  
## 4.57142857142857 1 0.09 98.41  
## 4.48995237572187 1 0.09 98.50  
## 4.42857142857143 1 0.09 98.59  
## 4.2 1 0.09 98.68  
## 4.0044237930059 1 0.09 98.76  
## 3.83333333333333 1 0.09 98.85  
## 3.7787856218168 1 0.09 98.94  
## 3.60153191151903 1 0.09 99.03  
## 3.57517671334751 1 0.09 99.12  
## 3.57142857142857 1 0.09 99.21  
## 3.57118853661686 1 0.09 99.29  
## 3.46900980350653 1 0.09 99.38  
## 3.33333333333333 1 0.09 99.47  
## 3.14285714285714 1 0.09 99.56  
## 2.99660045940026 1 0.09 99.65  
## 2.57142857142857 1 0.09 99.74  
## 2.52692936959529 1 0.09 99.82  
## 1.75 1 0.09 99.91  
## 1.5 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## impress\_manag\_sdr :   
## Frequency Percent Cum. percent  
## 4 82 7.24 7.24  
## 3.875 77 6.80 14.03  
## 3.75 70 6.18 20.21  
## 4.125 64 5.65 25.86  
## 4.375 57 5.03 30.89  
## 4.25 56 4.94 35.83  
## 3.5 56 4.94 40.78  
## 3.625 55 4.85 45.63  
## 3.375 55 4.85 50.49  
## 4.5 49 4.32 54.81  
## 4.75 44 3.88 58.69  
## 3.125 40 3.53 62.22  
## 4.625 38 3.35 65.58  
## 3.25 38 3.35 68.93  
## 2.875 35 3.09 72.02  
## 5.125 30 2.65 74.67  
## 2.75 28 2.47 77.14  
## 5 27 2.38 79.52  
## 3 27 2.38 81.91  
## 4.875 26 2.29 84.20  
## 5.25 19 1.68 85.88  
## 5.375 18 1.59 87.47  
## 5.5 17 1.50 88.97  
## 2.625 16 1.41 90.38  
## 2.5 13 1.15 91.53  
## 5.625 12 1.06 92.59  
## 5.75 8 0.71 93.29  
## 2.25 7 0.62 93.91  
## 6.125 6 0.53 94.44  
## 2.125 6 0.53 94.97  
## 5.875 5 0.44 95.41  
## 2.375 5 0.44 95.85  
## 6 4 0.35 96.20  
## 1.875 4 0.35 96.56  
## 6.375 3 0.26 96.82  
## 4.28571428571429 3 0.26 97.09  
## 7 2 0.18 97.26  
## 2 2 0.18 97.44  
## 6.75 1 0.09 97.53  
## 6.625 1 0.09 97.62  
## 6.5 1 0.09 97.71  
## 6.25 1 0.09 97.79  
## 5.91447292017486 1 0.09 97.88  
## 5.57142857142857 1 0.09 97.97  
## 5.36721893858353 1 0.09 98.06  
## 5.05223575942492 1 0.09 98.15  
## 4.88643675154312 1 0.09 98.23  
## 4.83652610722608 1 0.09 98.32  
## 4.82148115872914 1 0.09 98.41  
## 4.76992684224356 1 0.09 98.50  
## 4.57142857142857 1 0.09 98.59  
## 4.47714719018222 1 0.09 98.68  
## 4.42857142857143 1 0.09 98.76  
## 4.2 1 0.09 98.85  
## 4.08565732931296 1 0.09 98.94  
## 3.99450919317885 1 0.09 99.03  
## 3.90684282788937 1 0.09 99.12  
## 3.83333333333333 1 0.09 99.21  
## 3.61797349127035 1 0.09 99.29  
## 3.57142857142857 1 0.09 99.38  
## 3.40539618196314 1 0.09 99.47  
## 3.33333333333333 1 0.09 99.56  
## 3.14285714285714 1 0.09 99.65  
## 3.05228435151483 1 0.09 99.74  
## 2.57142857142857 1 0.09 99.82  
## 1.75 1 0.09 99.91  
## 1.5 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[4]]  
## impress\_manag\_sdr :   
## Frequency Percent Cum. percent  
## 4 82 7.24 7.24  
## 3.875 77 6.80 14.03  
## 3.75 70 6.18 20.21  
## 4.125 64 5.65 25.86  
## 4.375 57 5.03 30.89  
## 4.25 56 4.94 35.83  
## 3.5 56 4.94 40.78  
## 3.625 55 4.85 45.63  
## 3.375 55 4.85 50.49  
## 4.5 49 4.32 54.81  
## 4.75 44 3.88 58.69  
## 3.125 40 3.53 62.22  
## 4.625 38 3.35 65.58  
## 3.25 38 3.35 68.93  
## 2.875 35 3.09 72.02  
## 5.125 30 2.65 74.67  
## 2.75 28 2.47 77.14  
## 5 27 2.38 79.52  
## 3 27 2.38 81.91  
## 4.875 26 2.29 84.20  
## 5.25 19 1.68 85.88  
## 5.375 18 1.59 87.47  
## 5.5 17 1.50 88.97  
## 2.625 16 1.41 90.38  
## 2.5 13 1.15 91.53  
## 5.625 12 1.06 92.59  
## 5.75 8 0.71 93.29  
## 2.25 7 0.62 93.91  
## 6.125 6 0.53 94.44  
## 2.125 6 0.53 94.97  
## 5.875 5 0.44 95.41  
## 2.375 5 0.44 95.85  
## 6 4 0.35 96.20  
## 1.875 4 0.35 96.56  
## 6.375 3 0.26 96.82  
## 4.28571428571429 3 0.26 97.09  
## 7 2 0.18 97.26  
## 2 2 0.18 97.44  
## 6.75 1 0.09 97.53  
## 6.625 1 0.09 97.62  
## 6.5 1 0.09 97.71  
## 6.25 1 0.09 97.79  
## 5.57142857142857 1 0.09 97.88  
## 5.40128452216362 1 0.09 97.97  
## 5.26476291456455 1 0.09 98.06  
## 4.79009938540477 1 0.09 98.15  
## 4.73417452205179 1 0.09 98.23  
## 4.7314222995692 1 0.09 98.32  
## 4.57142857142857 1 0.09 98.41  
## 4.42857142857143 1 0.09 98.50  
## 4.24511646755742 1 0.09 98.59  
## 4.2 1 0.09 98.68  
## 4.15948632249261 1 0.09 98.76  
## 3.83333333333333 1 0.09 98.85  
## 3.72945395467046 1 0.09 98.94  
## 3.6340175263551 1 0.09 99.03  
## 3.63070332941164 1 0.09 99.12  
## 3.57142857142857 1 0.09 99.21  
## 3.40284060565084 1 0.09 99.29  
## 3.34387497598932 1 0.09 99.38  
## 3.33333333333333 1 0.09 99.47  
## 3.14285714285714 1 0.09 99.56  
## 3.00883850347762 1 0.09 99.65  
## 2.57142857142857 1 0.09 99.74  
## 2.18408726953367 1 0.09 99.82  
## 1.75 1 0.09 99.91  
## 1.5 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## impress\_manag\_sdr :   
## Frequency Percent Cum. percent  
## 4 82 7.24 7.24  
## 3.875 77 6.80 14.03  
## 3.75 70 6.18 20.21  
## 4.125 64 5.65 25.86  
## 4.375 57 5.03 30.89  
## 4.25 56 4.94 35.83  
## 3.5 56 4.94 40.78  
## 3.625 55 4.85 45.63  
## 3.375 55 4.85 50.49  
## 4.5 49 4.32 54.81  
## 4.75 44 3.88 58.69  
## 3.125 40 3.53 62.22  
## 4.625 38 3.35 65.58  
## 3.25 38 3.35 68.93  
## 2.875 35 3.09 72.02  
## 5.125 30 2.65 74.67  
## 2.75 28 2.47 77.14  
## 5 27 2.38 79.52  
## 3 27 2.38 81.91  
## 4.875 26 2.29 84.20  
## 5.25 19 1.68 85.88  
## 5.375 18 1.59 87.47  
## 5.5 17 1.50 88.97  
## 2.625 16 1.41 90.38  
## 2.5 13 1.15 91.53  
## 5.625 12 1.06 92.59  
## 5.75 8 0.71 93.29  
## 2.25 7 0.62 93.91  
## 6.125 6 0.53 94.44  
## 2.125 6 0.53 94.97  
## 5.875 5 0.44 95.41  
## 2.375 5 0.44 95.85  
## 6 4 0.35 96.20  
## 1.875 4 0.35 96.56  
## 6.375 3 0.26 96.82  
## 4.28571428571429 3 0.26 97.09  
## 7 2 0.18 97.26  
## 2 2 0.18 97.44  
## 6.75 1 0.09 97.53  
## 6.625 1 0.09 97.62  
## 6.5 1 0.09 97.71  
## 6.25 1 0.09 97.79  
## 5.57142857142857 1 0.09 97.88  
## 5.43297983352555 1 0.09 97.97  
## 5.16983851136103 1 0.09 98.06  
## 4.57142857142857 1 0.09 98.15  
## 4.42857142857143 1 0.09 98.23  
## 4.22578428243822 1 0.09 98.32  
## 4.20441289189861 1 0.09 98.41  
## 4.2 1 0.09 98.50  
## 4.05666871982556 1 0.09 98.59  
## 3.98187960958375 1 0.09 98.68  
## 3.84793824326334 1 0.09 98.76  
## 3.83333333333333 1 0.09 98.85  
## 3.82141233530552 1 0.09 98.94  
## 3.76215797883973 1 0.09 99.03  
## 3.75937752247103 1 0.09 99.12  
## 3.57142857142857 1 0.09 99.21  
## 3.56409021649456 1 0.09 99.29  
## 3.33333333333333 1 0.09 99.38  
## 3.32226900513705 1 0.09 99.47  
## 3.14285714285714 1 0.09 99.56  
## 3.05173539261158 1 0.09 99.65  
## 2.87641584729766 1 0.09 99.74  
## 2.57142857142857 1 0.09 99.82  
## 1.75 1 0.09 99.91  
## 1.5 1 0.09 100.00  
## Total 1133 100.00 100.00

data\_R\_alt %>%  
 dplyr::select(Age) %>%  
 describe()

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## Age 1 1030 19.87 1.95 19 19.67 1.48 18 50 32 4.91 59.29 0.06

with(mids\_obj, psych::describe(Age))

## call :  
## with.mids(data = mids\_obj, expr = psych::describe(Age))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.89 1.93 19.18 19.69 1.76 18 50 32 4.65 56.19 0.06  
##   
## [[2]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.87 1.93 19 19.67 1.48 18 50 32 4.68 57.02 0.06  
##   
## [[3]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.9 1.94 19.29 19.69 1.92 18 50 32 4.57 54.68 0.06  
##   
## [[4]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.88 1.94 19 19.68 1.48 18 50 32 4.63 55.73 0.06  
##   
## [[5]]  
## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 19.89 1.92 19.14 19.69 1.69 18 50 32 4.69 57.11 0.06

with(mids\_obj, mean(Age)) # mean

## call :  
## with.mids(data = mids\_obj, expr = mean(Age))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 19.89309  
##   
## [[2]]  
## [1] 19.87107  
##   
## [[3]]  
## [1] 19.89772  
##   
## [[4]]  
## [1] 19.88281  
##   
## [[5]]  
## [1] 19.8863

with(mids\_obj, sd(Age)) # sd

## call :  
## with.mids(data = mids\_obj, expr = sd(Age))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 1.932089  
##   
## [[2]]  
## [1] 1.926318  
##   
## [[3]]  
## [1] 1.944729  
##   
## [[4]]  
## [1] 1.936625  
##   
## [[5]]  
## [1] 1.924491

with(mids\_obj, skew(Age)) # skew

## call :  
## with.mids(data = mids\_obj, expr = skew(Age))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 4.646677  
##   
## [[2]]  
## [1] 4.682816  
##   
## [[3]]  
## [1] 4.574548  
##   
## [[4]]  
## [1] 4.631016  
##   
## [[5]]  
## [1] 4.686305

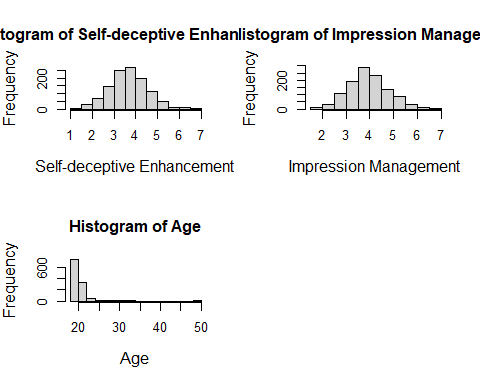
with(mids\_obj, mlv(Age, method = "mfv"))

## call :  
## with.mids(data = mids\_obj, expr = mlv(Age, method = "mfv"))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## [1] 19  
##   
## [[2]]  
## [1] 19  
##   
## [[3]]  
## [1] 19  
##   
## [[4]]  
## [1] 19  
##   
## [[5]]  
## [1] 19

with(mids\_obj, tab1(Age, decimal = 2, sort.group = "decreasing", graph = FALSE))

## call :  
## with.mids(data = mids\_obj, expr = tab1(Age, decimal = 2, sort.group = "decreasing",   
## graph = FALSE))  
##   
## call1 :  
## datlist2mids(dat.list = impobject)  
##   
## nmis :  
## hedonic egoistic altruistic   
## 13 14 13   
## biospheric ingroup\_identification Age   
## 14 0 103   
## clothing\_interest self\_deceptive\_sdr impress\_manag\_sdr   
## 0 15 14   
## consumer\_intentions consumer\_behaviors Gender   
## 0 11 26   
## framing\_condition norm\_condition FramingCode1   
## 0 0 0   
## FramingCode2 NormCode1 NormCode2   
## 0 0 0   
## NormCode3 NormCode4 framing1Xbiospheric   
## 0 0 14   
## framing2Xbiospheric norm1Xbiospheric norm2Xbiospheric   
## 14 14 11   
## norm3Xbiospheric norm4Xbiospheric framing1Xnorm1Xbiospheric   
## 8 7 14   
## framing1Xnorm2Xbiospheric framing1Xnorm3Xbiospheric framing1Xnorm4Xbiospheric   
## 11 8 7   
## framing2Xnorm1Xbiospheric framing2Xnorm2Xbiospheric framing2Xnorm3Xbiospheric   
## 14 11 8   
## framing2Xnorm4Xbiospheric framing1Xaltruistic framing2Xaltruistic   
## 7 13 13   
## norm1Xaltruistic norm2Xaltruistic norm3Xaltruistic   
## 13 10 8   
## norm4Xaltruistic framing1Xnorm1Xaltruistic framing1Xnorm2Xaltruistic   
## 7 13 10   
## framing1Xnorm3Xaltruistic framing1Xnorm4Xaltruistic framing2Xnorm1Xaltruistic   
## 8 7 13   
## framing2Xnorm2Xaltruistic framing2Xnorm3Xaltruistic framing2Xnorm4Xaltruistic   
## 10 8 7   
## framing1Xegoistic framing2Xegoistic norm1Xegoistic   
## 14 14 14   
## norm2Xegoistic norm3Xegoistic norm4Xegoistic   
## 12 9 8   
## framing1Xnorm1Xegoistic framing1Xnorm2Xegoistic framing1Xnorm3Xegoistic   
## 14 12 9   
## framing1Xnorm4Xegoistic framing2Xnorm1Xegoistic framing2Xnorm2Xegoistic   
## 8 14 12   
## framing2Xnorm3Xegoistic framing2Xnorm4Xegoistic framing1Xhedonic   
## 9 8 13   
## framing2Xhedonic norm1Xhedonic norm2Xhedonic   
## 13 13 11   
## norm3Xhedonic norm4Xhedonic framing1Xnorm1Xhedonic   
## 8 7 13   
## framing1Xnorm2Xhedonic framing1Xnorm3Xhedonic framing1Xnorm4Xhedonic   
## 11 8 7   
## framing2Xnorm1Xhedonic framing2Xnorm2Xhedonic framing2Xnorm3Xhedonic   
## 13 11 8   
## framing2Xnorm4Xhedonic framing1Xingroup framing2Xingroup   
## 7 0 0   
## norm1Xingroup norm2Xingroup norm3Xingroup   
## 0 0 0   
## norm4Xingroup framing1Xnorm1Xingroup framing1Xnorm2Xingroup   
## 0 0 0   
## framing1Xnorm3Xingroup framing1Xnorm4Xingroup framing2Xnorm1Xingroup   
## 0 0 0   
## framing2Xnorm2Xingroup framing2Xnorm3Xingroup framing2Xnorm4Xingroup   
## 0 0 0   
## biospheric\_center altruistic\_center egoistic\_center   
## 1133 1133 1133   
## hedonic\_center ingroup\_center Age\_center   
## 1133 0 1133   
## clothing\_center self\_dec\_center impress\_manag\_center   
## 0 1133 1133   
##   
## analyses :  
## [[1]]  
## Age :   
## Frequency Percent Cum. percent  
## 19 306 27.01 27.01  
## 18 239 21.09 48.10  
## 21 194 17.12 65.23  
## 20 166 14.65 79.88  
## 22 104 9.18 89.06  
## 24 13 1.15 90.20  
## 23 11 0.97 91.17  
## 25 5 0.44 91.62  
## 28 3 0.26 91.88  
## 50 1 0.09 91.97  
## 33 1 0.09 92.06  
## 32 1 0.09 92.14  
## 31 1 0.09 92.23  
## 30 1 0.09 92.32  
## 29 1 0.09 92.41  
## 25.5468714679538 1 0.09 92.50  
## 24.9156028003931 1 0.09 92.59  
## 23.8042955835985 1 0.09 92.67  
## 23.3753701383672 1 0.09 92.76  
## 23.1517357534897 1 0.09 92.85  
## 22.7511680907786 1 0.09 92.94  
## 22.7286315594688 1 0.09 93.03  
## 22.4669958539091 1 0.09 93.12  
## 22.4488685274249 1 0.09 93.20  
## 22.3384814054643 1 0.09 93.29  
## 22.2425984187173 1 0.09 93.38  
## 22.2190253757819 1 0.09 93.47  
## 22.1672112516066 1 0.09 93.56  
## 22.137865327949 1 0.09 93.65  
## 22.093834938688 1 0.09 93.73  
## 21.932353046007 1 0.09 93.82  
## 21.6370503492356 1 0.09 93.91  
## 21.6151124543828 1 0.09 94.00  
## 21.5630014444194 1 0.09 94.09  
## 21.5316126256082 1 0.09 94.17  
## 21.5070555162529 1 0.09 94.26  
## 21.4982085199094 1 0.09 94.35  
## 21.3595619697105 1 0.09 94.44  
## 21.3282420542607 1 0.09 94.53  
## 21.3197207168517 1 0.09 94.62  
## 21.1929123617538 1 0.09 94.70  
## 21.1473992305446 1 0.09 94.79  
## 20.9784785905781 1 0.09 94.88  
## 20.9581811339899 1 0.09 94.97  
## 20.9544763128463 1 0.09 95.06  
## 20.9444253014931 1 0.09 95.15  
## 20.8990147315365 1 0.09 95.23  
## 20.8392564381652 1 0.09 95.32  
## 20.7862462229307 1 0.09 95.41  
## 20.7702159936061 1 0.09 95.50  
## 20.7459530214476 1 0.09 95.59  
## 20.7024584075093 1 0.09 95.68  
## 20.6641106938575 1 0.09 95.76  
## 20.6178930454766 1 0.09 95.85  
## 20.5182321764229 1 0.09 95.94  
## 20.4780992063291 1 0.09 96.03  
## 20.4710824403084 1 0.09 96.12  
## 20.4309630639025 1 0.09 96.20  
## 20.3551635852171 1 0.09 96.29  
## 20.341432224454 1 0.09 96.38  
## 20.3378154073644 1 0.09 96.47  
## 20.2784928406381 1 0.09 96.56  
## 20.2555346246042 1 0.09 96.65  
## 20.2469369225618 1 0.09 96.73  
## 20.2430545820053 1 0.09 96.82  
## 20.1599156588504 1 0.09 96.91  
## 20.1016932657174 1 0.09 97.00  
## 19.9540925223202 1 0.09 97.09  
## 19.932830782756 1 0.09 97.18  
## 19.8174738571237 1 0.09 97.26  
## 19.6234860995477 1 0.09 97.35  
## 19.5576896459824 1 0.09 97.44  
## 19.5205427216629 1 0.09 97.53  
## 19.5121908129976 1 0.09 97.62  
## 19.4863547270897 1 0.09 97.71  
## 19.4671479799394 1 0.09 97.79  
## 19.464582339293 1 0.09 97.88  
## 19.3997188147969 1 0.09 97.97  
## 19.23353872153 1 0.09 98.06  
## 19.1840397941647 1 0.09 98.15  
## 19.1207956875623 1 0.09 98.23  
## 19.088126290256 1 0.09 98.32  
## 19.0527539696852 1 0.09 98.41  
## 19.0350793589141 1 0.09 98.50  
## 18.9926332160424 1 0.09 98.59  
## 18.9451524444424 1 0.09 98.68  
## 18.9417178571439 1 0.09 98.76  
## 18.9228699220226 1 0.09 98.85  
## 18.9047184223148 1 0.09 98.94  
## 18.8666816827284 1 0.09 99.03  
## 18.8307535264468 1 0.09 99.12  
## 18.6222009392137 1 0.09 99.21  
## 18.4850763389242 1 0.09 99.29  
## 18.4429403502477 1 0.09 99.38  
## 18.3919908272752 1 0.09 99.47  
## 18.3346932465077 1 0.09 99.56  
## 18.2577259657284 1 0.09 99.65  
## 18.1708520643872 1 0.09 99.74  
## 18.1399916286586 1 0.09 99.82  
## 18.0558692248889 1 0.09 99.91  
## 18.0179358509988 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[2]]  
## Age :   
## Frequency Percent Cum. percent  
## 19 306 27.01 27.01  
## 18 242 21.36 48.37  
## 21 194 17.12 65.49  
## 20 166 14.65 80.14  
## 22 104 9.18 89.32  
## 24 13 1.15 90.47  
## 23 11 0.97 91.44  
## 25 5 0.44 91.88  
## 28 3 0.26 92.14  
## 50 1 0.09 92.23  
## 33 1 0.09 92.32  
## 32 1 0.09 92.41  
## 31 1 0.09 92.50  
## 30 1 0.09 92.59  
## 29 1 0.09 92.67  
## 23.6169555727348 1 0.09 92.76  
## 23.2060073049204 1 0.09 92.85  
## 23.1510822377038 1 0.09 92.94  
## 23.1402059246228 1 0.09 93.03  
## 22.8551768685791 1 0.09 93.12  
## 22.8070026505758 1 0.09 93.20  
## 22.7766347940651 1 0.09 93.29  
## 22.525038900468 1 0.09 93.38  
## 22.4436069872532 1 0.09 93.47  
## 22.4321214028376 1 0.09 93.56  
## 22.3035034732819 1 0.09 93.65  
## 22.2679512843792 1 0.09 93.73  
## 22.1094731920647 1 0.09 93.82  
## 21.7177697854023 1 0.09 93.91  
## 21.6328234808517 1 0.09 94.00  
## 21.5380105108224 1 0.09 94.09  
## 21.5140071114907 1 0.09 94.17  
## 21.4166518001449 1 0.09 94.26  
## 21.3868950343892 1 0.09 94.35  
## 21.3847503773446 1 0.09 94.44  
## 21.3608533866085 1 0.09 94.53  
## 21.3461734430817 1 0.09 94.62  
## 21.329658623375 1 0.09 94.70  
## 21.3002648226592 1 0.09 94.79  
## 21.2922255176837 1 0.09 94.88  
## 21.1850986931397 1 0.09 94.97  
## 21.1207871564379 1 0.09 95.06  
## 21.0656964391722 1 0.09 95.15  
## 20.9876140853761 1 0.09 95.23  
## 20.9662672108891 1 0.09 95.32  
## 20.9654797395157 1 0.09 95.41  
## 20.9294152586785 1 0.09 95.50  
## 20.7406437740778 1 0.09 95.59  
## 20.6373904693479 1 0.09 95.68  
## 20.5889086379984 1 0.09 95.76  
## 20.5467657643509 1 0.09 95.85  
## 20.5111225629491 1 0.09 95.94  
## 20.5044064136923 1 0.09 96.03  
## 20.4413850156336 1 0.09 96.12  
## 20.4009899050993 1 0.09 96.20  
## 20.38654951581 1 0.09 96.29  
## 20.3075527174366 1 0.09 96.38  
## 20.1847961901341 1 0.09 96.47  
## 20.1526808606377 1 0.09 96.56  
## 20.0564012857224 1 0.09 96.65  
## 20.0424791781517 1 0.09 96.73  
## 19.9510553463059 1 0.09 96.82  
## 19.9099237189736 1 0.09 96.91  
## 19.7825102974288 1 0.09 97.00  
## 19.7113410426557 1 0.09 97.09  
## 19.6946034148128 1 0.09 97.18  
## 19.6442141172871 1 0.09 97.26  
## 19.5262635345045 1 0.09 97.35  
## 19.3957032400069 1 0.09 97.44  
## 19.3733396336089 1 0.09 97.53  
## 19.2912102579094 1 0.09 97.62  
## 19.2476341870392 1 0.09 97.71  
## 19.2160200417879 1 0.09 97.79  
## 19.0985187631063 1 0.09 97.88  
## 19.0584617138633 1 0.09 97.97  
## 18.9580772734527 1 0.09 98.06  
## 18.7939394835796 1 0.09 98.15  
## 18.759480136607 1 0.09 98.23  
## 18.7501918434206 1 0.09 98.32  
## 18.7006686087416 1 0.09 98.41  
## 18.6501887109183 1 0.09 98.50  
## 18.6405787415952 1 0.09 98.59  
## 18.5747697718247 1 0.09 98.68  
## 18.5264047850803 1 0.09 98.76  
## 18.4686138734433 1 0.09 98.85  
## 18.4589671358594 1 0.09 98.94  
## 18.4364237687031 1 0.09 99.03  
## 18.4123764489806 1 0.09 99.12  
## 18.3869648510529 1 0.09 99.21  
## 18.3813524126487 1 0.09 99.29  
## 18.3760131000251 1 0.09 99.38  
## 18.3655566168449 1 0.09 99.47  
## 18.2807272443585 1 0.09 99.56  
## 18.213679689092 1 0.09 99.65  
## 18.1552022036789 1 0.09 99.74  
## 18.1039099952165 1 0.09 99.82  
## 18.0403147478627 1 0.09 99.91  
## 18.0072829358883 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[3]]  
## Age :   
## Frequency Percent Cum. percent  
## 19 306 27.01 27.01  
## 18 242 21.36 48.37  
## 21 194 17.12 65.49  
## 20 166 14.65 80.14  
## 22 104 9.18 89.32  
## 24 13 1.15 90.47  
## 23 11 0.97 91.44  
## 25 5 0.44 91.88  
## 28 3 0.26 92.14  
## 50 1 0.09 92.23  
## 33 1 0.09 92.32  
## 32 1 0.09 92.41  
## 31 1 0.09 92.50  
## 30 1 0.09 92.59  
## 29 1 0.09 92.67  
## 25.0869379111565 1 0.09 92.76  
## 25.0288553796879 1 0.09 92.85  
## 24.6334889598932 1 0.09 92.94  
## 24.2171092051261 1 0.09 93.03  
## 24.0004899602755 1 0.09 93.12  
## 23.3933843553447 1 0.09 93.20  
## 23.3338655391598 1 0.09 93.29  
## 23.2328824388668 1 0.09 93.38  
## 23.0347601316152 1 0.09 93.47  
## 22.8838604427196 1 0.09 93.56  
## 22.8241849879648 1 0.09 93.65  
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## Total 1133 100.00 100.00  
##   
## [[4]]  
## Age :   
## Frequency Percent Cum. percent  
## 19 306 27.01 27.01  
## 18 238 21.01 48.01  
## 21 194 17.12 65.14  
## 20 166 14.65 79.79  
## 22 104 9.18 88.97  
## 24 13 1.15 90.11  
## 23 11 0.97 91.09  
## 25 5 0.44 91.53  
## 28 3 0.26 91.79  
## 50 1 0.09 91.88  
## 33 1 0.09 91.97  
## 32 1 0.09 92.06  
## 31 1 0.09 92.14  
## 30 1 0.09 92.23  
## 29 1 0.09 92.32  
## 24.952757486999 1 0.09 92.41  
## 24.348946310091 1 0.09 92.50  
## 23.863735663468 1 0.09 92.59  
## 23.7323398204537 1 0.09 92.67  
## 23.5503091898658 1 0.09 92.76  
## 23.3888001275325 1 0.09 92.85  
## 23.2364562412335 1 0.09 92.94  
## 23.1940400123618 1 0.09 93.03  
## 22.8509338812079 1 0.09 93.12  
## 22.7465666279552 1 0.09 93.20  
## 22.6381709844242 1 0.09 93.29  
## 22.6073291955532 1 0.09 93.38  
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## 22.1842747368303 1 0.09 93.56  
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## 21.4220323418237 1 0.09 94.17  
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## 19.6791450420509 1 0.09 96.65  
## 19.6758552511738 1 0.09 96.73  
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## 19.629834158841 1 0.09 96.91  
## 19.6226300231913 1 0.09 97.00  
## 19.5850264923149 1 0.09 97.09  
## 19.4962739035508 1 0.09 97.18  
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## 18.8430636570014 1 0.09 98.23  
## 18.7881166803667 1 0.09 98.32  
## 18.7473350376094 1 0.09 98.41  
## 18.7323230539466 1 0.09 98.50  
## 18.7079969481784 1 0.09 98.59  
## 18.6824828307619 1 0.09 98.68  
## 18.6635612472222 1 0.09 98.76  
## 18.6310995893477 1 0.09 98.85  
## 18.5438408538239 1 0.09 98.94  
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## 18.3463330473378 1 0.09 99.12  
## 18.317853687134 1 0.09 99.21  
## 18.3079540922818 1 0.09 99.29  
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## 18.2198925615312 1 0.09 99.47  
## 18.2021793008963 1 0.09 99.56  
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## 18.1481482948303 1 0.09 99.74  
## 18.1404362746374 1 0.09 99.82  
## 18.1331568316027 1 0.09 99.91  
## 18.0814688729013 1 0.09 100.00  
## Total 1133 100.00 100.00  
##   
## [[5]]  
## Age :   
## Frequency Percent Cum. percent  
## 19 306 27.01 27.01  
## 18 236 20.83 47.84  
## 21 194 17.12 64.96  
## 20 166 14.65 79.61  
## 22 104 9.18 88.79  
## 24 13 1.15 89.94  
## 23 11 0.97 90.91  
## 25 5 0.44 91.35  
## 28 3 0.26 91.62  
## 50 1 0.09 91.70  
## 33 1 0.09 91.79  
## 32 1 0.09 91.88  
## 31 1 0.09 91.97  
## 30 1 0.09 92.06  
## 29 1 0.09 92.14  
## 24.0569966373492 1 0.09 92.23  
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## 23.0605023876569 1 0.09 92.41  
## 23.05158023385 1 0.09 92.50  
## 23.0104359467978 1 0.09 92.59  
## 22.7593293734455 1 0.09 92.67  
## 22.7346357969309 1 0.09 92.76  
## 22.6602026361686 1 0.09 92.85  
## 22.6180831335163 1 0.09 92.94  
## 22.5386607884236 1 0.09 93.03  
## 22.5199837457716 1 0.09 93.12  
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## 22.3072683919041 1 0.09 93.29  
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## 21.3683215870667 1 0.09 94.26  
## 21.2690943046687 1 0.09 94.35  
## 21.2088748370403 1 0.09 94.44  
## 21.1764225262836 1 0.09 94.53  
## 21.1689711568204 1 0.09 94.62  
## 21.1410282291339 1 0.09 94.70  
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## 20.80359744537 1 0.09 94.97  
## 20.7436118741285 1 0.09 95.06  
## 20.7368175338995 1 0.09 95.15  
## 20.6908348509108 1 0.09 95.23  
## 20.6437120943773 1 0.09 95.32  
## 20.6372971438986 1 0.09 95.41  
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## 18.5961619178198 1 0.09 98.76  
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## 18.575490401603 1 0.09 98.94  
## 18.5749164493994 1 0.09 99.03  
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## 18.5591698864271 1 0.09 99.21  
## 18.5482944397677 1 0.09 99.29  
## 18.4099035717058 1 0.09 99.38  
## 18.3717407079694 1 0.09 99.47  
## 18.3633433782031 1 0.09 99.56  
## 18.2807019038428 1 0.09 99.65  
## 18.2145261371997 1 0.09 99.74  
## 18.1448337487617 1 0.09 99.82  
## 18.1328075507979 1 0.09 99.91  
## 18.078363139913 1 0.09 100.00  
## Total 1133 100.00 100.00

par(mfrow = c(2,2))  
  
hist(imp5\_data$self\_deceptive\_sdr, main = "Histogram of Self-deceptive Enhancement", xlab = "Self-deceptive Enhancement", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)  
  
hist(imp5\_data$impress\_manag\_sdr, main = "Histogram of Impression Management", xlab = "Impression Management", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)  
  
hist(imp5\_data$Age, main = "Histogram of Age", xlab = "Age", ylab = "Frequency", cex.lab = 1.2, cex.main = 1.2)



# Regression Analysis (DV = Consumer Intentions)

## Running Model

## Pooled Regression Results

Using mice package:

| term | estimate | std.error | statistic | df | p.value |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 4.388 | 0.034 | 128.023 | 1023.945 | 0.000 |
| framing\_conditionFrameCode1 | 0.034 | 0.082 | 0.414 | 1034.107 | 0.679 |
| framing\_conditionFrameCode2 | 0.135 | 0.070 | 1.928 | 1029.286 | 0.054 |
| norm\_condition1 | -0.015 | 0.052 | -0.287 | 1032.670 | 0.774 |
| norm\_condition2 | 0.028 | 0.030 | 0.941 | 1033.708 | 0.347 |
| norm\_condition3 | -0.042 | 0.021 | -1.978 | 1023.062 | 0.048 |
| norm\_condition4 | -0.015 | 0.017 | -0.897 | 1028.325 | 0.370 |
| biospheric\_center | 0.362 | 0.046 | 7.792 | 1022.818 | 0.000 |
| altruistic\_center | 0.079 | 0.064 | 1.228 | 861.983 | 0.220 |
| egoistic\_center | -0.297 | 0.043 | -6.934 | 1024.327 | 0.000 |
| hedonic\_center | -0.093 | 0.054 | -1.702 | 926.774 | 0.089 |
| ingroup\_center | 0.028 | 0.034 | 0.826 | 953.000 | 0.409 |
| self\_dec\_center | -0.110 | 0.043 | -2.535 | 924.335 | 0.011 |
| impress\_manag\_center | -0.015 | 0.042 | -0.353 | 1004.671 | 0.724 |
| clothing\_center | 0.004 | 0.045 | 0.079 | 1034.674 | 0.937 |
| Gender1 | 0.148 | 0.077 | 1.907 | 717.436 | 0.057 |
| Age\_center | -0.041 | 0.021 | -1.964 | 68.868 | 0.054 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.198 | 0.126 | 1.568 | 1034.206 | 0.117 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.105 | 0.110 | -0.951 | 1034.861 | 0.342 |
| framing\_conditionFrameCode1:norm\_condition2 | -0.005 | 0.076 | -0.065 | 1028.052 | 0.948 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.037 | 0.062 | -0.594 | 1033.886 | 0.552 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.026 | 0.052 | 0.506 | 1025.319 | 0.613 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.024 | 0.046 | 0.513 | 1030.215 | 0.608 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.028 | 0.043 | 0.662 | 998.651 | 0.508 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.015 | 0.035 | -0.442 | 1024.288 | 0.659 |
| framing\_conditionFrameCode1:biospheric\_center | -0.048 | 0.122 | -0.393 | 791.784 | 0.695 |
| framing\_conditionFrameCode2:biospheric\_center | 0.062 | 0.092 | 0.676 | 1007.314 | 0.499 |
| norm\_condition1:biospheric\_center | -0.070 | 0.071 | -0.986 | 931.919 | 0.324 |
| norm\_condition2:biospheric\_center | 0.078 | 0.042 | 1.883 | 1031.572 | 0.060 |
| norm\_condition3:biospheric\_center | -0.049 | 0.029 | -1.691 | 985.564 | 0.091 |
| norm\_condition4:biospheric\_center | -0.043 | 0.025 | -1.711 | 986.899 | 0.087 |
| framing\_conditionFrameCode1:altruistic\_center | 0.019 | 0.158 | 0.121 | 809.254 | 0.903 |
| framing\_conditionFrameCode2:altruistic\_center | -0.132 | 0.127 | -1.040 | 968.663 | 0.299 |
| norm\_condition1:altruistic\_center | -0.127 | 0.101 | -1.255 | 622.618 | 0.210 |
| norm\_condition2:altruistic\_center | -0.016 | 0.056 | -0.284 | 783.324 | 0.777 |
| norm\_condition3:altruistic\_center | 0.031 | 0.042 | 0.725 | 928.160 | 0.469 |
| norm\_condition4:altruistic\_center | 0.067 | 0.029 | 2.271 | 992.950 | 0.023 |
| framing\_conditionFrameCode1:egoistic\_center | -0.033 | 0.103 | -0.325 | 990.506 | 0.745 |
| framing\_conditionFrameCode2:egoistic\_center | 0.047 | 0.086 | 0.545 | 1019.471 | 0.586 |
| norm\_condition1:egoistic\_center | 0.050 | 0.069 | 0.727 | 616.356 | 0.467 |
| norm\_condition2:egoistic\_center | -0.017 | 0.036 | -0.455 | 980.935 | 0.649 |
| norm\_condition3:egoistic\_center | 0.017 | 0.026 | 0.648 | 1022.771 | 0.517 |
| norm\_condition4:egoistic\_center | 0.015 | 0.021 | 0.735 | 1031.392 | 0.462 |
| framing\_conditionFrameCode1:hedonic\_center | 0.008 | 0.134 | 0.057 | 786.351 | 0.955 |
| framing\_conditionFrameCode2:hedonic\_center | 0.153 | 0.113 | 1.358 | 987.017 | 0.175 |
| norm\_condition1:hedonic\_center | 0.018 | 0.090 | 0.197 | 841.440 | 0.844 |
| norm\_condition2:hedonic\_center | 0.063 | 0.049 | 1.298 | 940.078 | 0.195 |
| norm\_condition3:hedonic\_center | -0.044 | 0.036 | -1.243 | 936.181 | 0.214 |
| norm\_condition4:hedonic\_center | -0.046 | 0.025 | -1.845 | 1000.635 | 0.065 |
| framing\_conditionFrameCode1:ingroup\_center | 0.024 | 0.082 | 0.296 | 1033.245 | 0.768 |
| framing\_conditionFrameCode2:ingroup\_center | -0.059 | 0.071 | -0.830 | 1032.970 | 0.407 |
| norm\_condition1:ingroup\_center | 0.007 | 0.053 | 0.138 | 1018.457 | 0.890 |
| norm\_condition2:ingroup\_center | -0.012 | 0.031 | -0.375 | 1032.672 | 0.708 |
| norm\_condition3:ingroup\_center | 0.004 | 0.022 | 0.178 | 1035.604 | 0.859 |
| norm\_condition4:ingroup\_center | -0.014 | 0.017 | -0.866 | 1030.704 | 0.387 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.061 | 0.183 | -0.333 | 561.259 | 0.740 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.034 | 0.144 | 0.236 | 995.508 | 0.814 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.128 | 0.105 | -1.215 | 1031.428 | 0.225 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.113 | 0.085 | 1.329 | 1029.693 | 0.184 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.147 | 0.076 | 1.948 | 1027.004 | 0.052 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.066 | 0.057 | 1.152 | 1025.259 | 0.250 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.061 | 0.068 | 0.894 | 892.037 | 0.372 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.114 | 0.048 | 2.400 | 1018.033 | 0.017 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.091 | 0.260 | -0.350 | 227.585 | 0.727 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.214 | 0.208 | 1.025 | 908.729 | 0.306 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.249 | 0.139 | 1.788 | 970.713 | 0.074 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | 0.001 | 0.114 | 0.007 | 915.239 | 0.995 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.159 | 0.107 | -1.488 | 999.113 | 0.137 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.066 | 0.085 | -0.767 | 959.259 | 0.443 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | -0.006 | 0.077 | -0.079 | 930.525 | 0.937 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.084 | 0.058 | -1.450 | 1027.468 | 0.147 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.049 | 0.179 | 0.273 | 440.575 | 0.785 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.128 | 0.139 | 0.926 | 886.168 | 0.354 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.017 | 0.088 | -0.199 | 1024.814 | 0.842 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.162 | 0.078 | 2.090 | 1031.229 | 0.037 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.081 | 0.064 | 1.277 | 1030.873 | 0.202 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.026 | 0.055 | 0.464 | 1024.471 | 0.643 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.059 | 0.053 | -1.109 | 979.262 | 0.268 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.039 | 0.043 | -0.913 | 1035.497 | 0.361 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | -0.010 | 0.226 | -0.043 | 489.806 | 0.966 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.224 | 0.190 | -1.175 | 905.881 | 0.240 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.135 | 0.118 | -1.143 | 911.933 | 0.253 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | -0.001 | 0.103 | -0.012 | 994.582 | 0.991 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.118 | 0.089 | -1.325 | 985.320 | 0.186 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | -0.003 | 0.073 | -0.042 | 975.401 | 0.966 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | -0.008 | 0.062 | -0.132 | 947.549 | 0.895 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.035 | 0.052 | 0.675 | 1013.169 | 0.500 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.186 | 0.128 | 1.452 | 997.017 | 0.147 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.037 | 0.113 | 0.325 | 1029.862 | 0.745 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.120 | 0.078 | 1.537 | 1012.502 | 0.125 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.033 | 0.065 | -0.504 | 1035.548 | 0.614 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.037 | 0.053 | 0.691 | 1008.764 | 0.490 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.030 | 0.046 | -0.646 | 1035.264 | 0.519 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.088 | 0.040 | -2.212 | 1024.410 | 0.027 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.040 | 0.035 | 1.120 | 1035.637 | 0.263 |

APA style table for regression summary

apa\_table(pool\_summ,  
 caption = "Table 1 Pooled Regression Results",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-30)

*Table 1 Pooled Regression Results*

| term | estimate | std.error | statistic | df | p.value |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.02 | 1,023.94 | 0.00 |
| framing\_conditionFrameCode1 | 0.03 | 0.08 | 0.41 | 1,034.11 | 0.68 |
| framing\_conditionFrameCode2 | 0.13 | 0.07 | 1.93 | 1,029.29 | 0.05 |
| norm\_condition1 | -0.01 | 0.05 | -0.29 | 1,032.67 | 0.77 |
| norm\_condition2 | 0.03 | 0.03 | 0.94 | 1,033.71 | 0.35 |
| norm\_condition3 | -0.04 | 0.02 | -1.98 | 1,023.06 | 0.05 |
| norm\_condition4 | -0.02 | 0.02 | -0.90 | 1,028.32 | 0.37 |
| biospheric\_center | 0.36 | 0.05 | 7.79 | 1,022.82 | 0.00 |
| altruistic\_center | 0.08 | 0.06 | 1.23 | 861.98 | 0.22 |
| egoistic\_center | -0.30 | 0.04 | -6.93 | 1,024.33 | 0.00 |
| hedonic\_center | -0.09 | 0.05 | -1.70 | 926.77 | 0.09 |
| ingroup\_center | 0.03 | 0.03 | 0.83 | 953.00 | 0.41 |
| self\_dec\_center | -0.11 | 0.04 | -2.54 | 924.33 | 0.01 |
| impress\_manag\_center | -0.01 | 0.04 | -0.35 | 1,004.67 | 0.72 |
| clothing\_center | 0.00 | 0.05 | 0.08 | 1,034.67 | 0.94 |
| Gender1 | 0.15 | 0.08 | 1.91 | 717.44 | 0.06 |
| Age\_center | -0.04 | 0.02 | -1.96 | 68.87 | 0.05 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.20 | 0.13 | 1.57 | 1,034.21 | 0.12 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.10 | 0.11 | -0.95 | 1,034.86 | 0.34 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.08 | -0.07 | 1,028.05 | 0.95 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.04 | 0.06 | -0.59 | 1,033.89 | 0.55 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.03 | 0.05 | 0.51 | 1,025.32 | 0.61 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.05 | 0.51 | 1,030.22 | 0.61 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.03 | 0.04 | 0.66 | 998.65 | 0.51 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.02 | 0.03 | -0.44 | 1,024.29 | 0.66 |
| framing\_conditionFrameCode1:biospheric\_center | -0.05 | 0.12 | -0.39 | 791.78 | 0.69 |
| framing\_conditionFrameCode2:biospheric\_center | 0.06 | 0.09 | 0.68 | 1,007.31 | 0.50 |
| norm\_condition1:biospheric\_center | -0.07 | 0.07 | -0.99 | 931.92 | 0.32 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.88 | 1,031.57 | 0.06 |
| norm\_condition3:biospheric\_center | -0.05 | 0.03 | -1.69 | 985.56 | 0.09 |
| norm\_condition4:biospheric\_center | -0.04 | 0.03 | -1.71 | 986.90 | 0.09 |
| framing\_conditionFrameCode1:altruistic\_center | 0.02 | 0.16 | 0.12 | 809.25 | 0.90 |
| framing\_conditionFrameCode2:altruistic\_center | -0.13 | 0.13 | -1.04 | 968.66 | 0.30 |
| norm\_condition1:altruistic\_center | -0.13 | 0.10 | -1.26 | 622.62 | 0.21 |
| norm\_condition2:altruistic\_center | -0.02 | 0.06 | -0.28 | 783.32 | 0.78 |
| norm\_condition3:altruistic\_center | 0.03 | 0.04 | 0.73 | 928.16 | 0.47 |
| norm\_condition4:altruistic\_center | 0.07 | 0.03 | 2.27 | 992.95 | 0.02 |
| framing\_conditionFrameCode1:egoistic\_center | -0.03 | 0.10 | -0.33 | 990.51 | 0.75 |
| framing\_conditionFrameCode2:egoistic\_center | 0.05 | 0.09 | 0.54 | 1,019.47 | 0.59 |
| norm\_condition1:egoistic\_center | 0.05 | 0.07 | 0.73 | 616.36 | 0.47 |
| norm\_condition2:egoistic\_center | -0.02 | 0.04 | -0.45 | 980.94 | 0.65 |
| norm\_condition3:egoistic\_center | 0.02 | 0.03 | 0.65 | 1,022.77 | 0.52 |
| norm\_condition4:egoistic\_center | 0.02 | 0.02 | 0.74 | 1,031.39 | 0.46 |
| framing\_conditionFrameCode1:hedonic\_center | 0.01 | 0.13 | 0.06 | 786.35 | 0.95 |
| framing\_conditionFrameCode2:hedonic\_center | 0.15 | 0.11 | 1.36 | 987.02 | 0.17 |
| norm\_condition1:hedonic\_center | 0.02 | 0.09 | 0.20 | 841.44 | 0.84 |
| norm\_condition2:hedonic\_center | 0.06 | 0.05 | 1.30 | 940.08 | 0.19 |
| norm\_condition3:hedonic\_center | -0.04 | 0.04 | -1.24 | 936.18 | 0.21 |
| norm\_condition4:hedonic\_center | -0.05 | 0.03 | -1.84 | 1,000.63 | 0.07 |
| framing\_conditionFrameCode1:ingroup\_center | 0.02 | 0.08 | 0.30 | 1,033.25 | 0.77 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.83 | 1,032.97 | 0.41 |
| norm\_condition1:ingroup\_center | 0.01 | 0.05 | 0.14 | 1,018.46 | 0.89 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.38 | 1,032.67 | 0.71 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.18 | 1,035.60 | 0.86 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.87 | 1,030.70 | 0.39 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.06 | 0.18 | -0.33 | 561.26 | 0.74 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.03 | 0.14 | 0.24 | 995.51 | 0.81 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.13 | 0.11 | -1.21 | 1,031.43 | 0.22 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.11 | 0.08 | 1.33 | 1,029.69 | 0.18 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.15 | 0.08 | 1.95 | 1,027.00 | 0.05 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.07 | 0.06 | 1.15 | 1,025.26 | 0.25 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.06 | 0.07 | 0.89 | 892.04 | 0.37 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.11 | 0.05 | 2.40 | 1,018.03 | 0.02 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.09 | 0.26 | -0.35 | 227.59 | 0.73 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.21 | 0.21 | 1.02 | 908.73 | 0.31 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.25 | 0.14 | 1.79 | 970.71 | 0.07 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | 0.00 | 0.11 | 0.01 | 915.24 | 0.99 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.16 | 0.11 | -1.49 | 999.11 | 0.14 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.07 | 0.09 | -0.77 | 959.26 | 0.44 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | -0.01 | 0.08 | -0.08 | 930.52 | 0.94 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.08 | 0.06 | -1.45 | 1,027.47 | 0.15 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.05 | 0.18 | 0.27 | 440.57 | 0.79 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.13 | 0.14 | 0.93 | 886.17 | 0.35 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.02 | 0.09 | -0.20 | 1,024.81 | 0.84 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.16 | 0.08 | 2.09 | 1,031.23 | 0.04 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.28 | 1,030.87 | 0.20 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.03 | 0.06 | 0.46 | 1,024.47 | 0.64 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.06 | 0.05 | -1.11 | 979.26 | 0.27 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.91 | 1,035.50 | 0.36 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | -0.01 | 0.23 | -0.04 | 489.81 | 0.97 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.22 | 0.19 | -1.18 | 905.88 | 0.24 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.13 | 0.12 | -1.14 | 911.93 | 0.25 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | 0.00 | 0.10 | -0.01 | 994.58 | 0.99 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.12 | 0.09 | -1.32 | 985.32 | 0.19 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | 0.00 | 0.07 | -0.04 | 975.40 | 0.97 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | -0.01 | 0.06 | -0.13 | 947.55 | 0.90 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.04 | 0.05 | 0.67 | 1,013.17 | 0.50 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.19 | 0.13 | 1.45 | 997.02 | 0.15 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.04 | 0.11 | 0.32 | 1,029.86 | 0.75 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.12 | 0.08 | 1.54 | 1,012.50 | 0.12 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.50 | 1,035.55 | 0.61 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.04 | 0.05 | 0.69 | 1,008.76 | 0.49 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.65 | 1,035.26 | 0.52 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.21 | 1,024.41 | 0.03 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.12 | 1,035.64 | 0.26 |

*Note.* DV = Consumer Intentions

## Standardized Regression Coefficients

Using scale()

pool\_summ\_std <- summary(pool(mod\_mice\_std))  
  
pool\_summ\_std %>%  
 knitr::kable(digits = 3)

| term | estimate | std.error | statistic | df | p.value |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -0.021 | 0.029 | -0.726 | 1023.945 | 0.468 |
| framing\_conditionFrameCode1 | 0.029 | 0.069 | 0.414 | 1034.107 | 0.679 |
| framing\_conditionFrameCode2 | 0.113 | 0.059 | 1.928 | 1029.286 | 0.054 |
| norm\_condition1 | -0.012 | 0.043 | -0.287 | 1032.670 | 0.774 |
| norm\_condition2 | 0.024 | 0.025 | 0.941 | 1033.708 | 0.347 |
| norm\_condition3 | -0.036 | 0.018 | -1.978 | 1023.062 | 0.048 |
| norm\_condition4 | -0.013 | 0.014 | -0.897 | 1028.325 | 0.370 |
| scale(biospheric) | 0.303 | 0.039 | 7.785 | 1015.172 | 0.000 |
| scale(altruistic) | 0.053 | 0.043 | 1.228 | 867.754 | 0.220 |
| scale(egoistic) | -0.230 | 0.033 | -6.934 | 1024.592 | 0.000 |
| scale(hedonic) | -0.062 | 0.036 | -1.702 | 930.727 | 0.089 |
| scale(ingroup\_identification) | 0.024 | 0.029 | 0.826 | 953.000 | 0.409 |
| scale(self\_deceptive\_sdr) | -0.079 | 0.031 | -2.535 | 926.268 | 0.011 |
| scale(impress\_manag\_sdr) | -0.011 | 0.030 | -0.353 | 1004.905 | 0.724 |
| scale(clothing\_interest) | 0.002 | 0.030 | 0.079 | 1034.674 | 0.937 |
| Gender1 | 0.124 | 0.065 | 1.907 | 717.436 | 0.057 |
| scale(Age) | -0.067 | 0.034 | -1.960 | 66.785 | 0.054 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.167 | 0.106 | 1.568 | 1034.206 | 0.117 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.088 | 0.093 | -0.951 | 1034.861 | 0.342 |
| framing\_conditionFrameCode1:norm\_condition2 | -0.004 | 0.064 | -0.065 | 1028.052 | 0.948 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.031 | 0.053 | -0.594 | 1033.886 | 0.552 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.022 | 0.044 | 0.506 | 1025.319 | 0.613 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.020 | 0.039 | 0.513 | 1030.215 | 0.608 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.024 | 0.036 | 0.662 | 998.651 | 0.508 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.013 | 0.029 | -0.442 | 1024.288 | 0.659 |
| framing\_conditionFrameCode1:scale(biospheric) | -0.040 | 0.102 | -0.392 | 794.635 | 0.695 |
| framing\_conditionFrameCode2:scale(biospheric) | 0.052 | 0.077 | 0.676 | 1008.168 | 0.499 |
| norm\_condition1:scale(biospheric) | -0.059 | 0.059 | -0.986 | 930.919 | 0.324 |
| norm\_condition2:scale(biospheric) | 0.066 | 0.035 | 1.883 | 1031.203 | 0.060 |
| norm\_condition3:scale(biospheric) | -0.041 | 0.024 | -1.691 | 983.689 | 0.091 |
| norm\_condition4:scale(biospheric) | -0.036 | 0.021 | -1.712 | 993.117 | 0.087 |
| framing\_conditionFrameCode1:scale(altruistic) | 0.013 | 0.107 | 0.121 | 809.705 | 0.904 |
| framing\_conditionFrameCode2:scale(altruistic) | -0.089 | 0.086 | -1.040 | 971.164 | 0.299 |
| norm\_condition1:scale(altruistic) | -0.086 | 0.069 | -1.255 | 630.517 | 0.210 |
| norm\_condition2:scale(altruistic) | -0.011 | 0.038 | -0.284 | 784.670 | 0.777 |
| norm\_condition3:scale(altruistic) | 0.021 | 0.029 | 0.725 | 924.521 | 0.469 |
| norm\_condition4:scale(altruistic) | 0.045 | 0.020 | 2.270 | 984.734 | 0.023 |
| framing\_conditionFrameCode1:scale(egoistic) | -0.026 | 0.080 | -0.325 | 991.078 | 0.745 |
| framing\_conditionFrameCode2:scale(egoistic) | 0.036 | 0.066 | 0.545 | 1019.914 | 0.586 |
| norm\_condition1:scale(egoistic) | 0.039 | 0.054 | 0.727 | 613.118 | 0.467 |
| norm\_condition2:scale(egoistic) | -0.013 | 0.028 | -0.455 | 982.372 | 0.649 |
| norm\_condition3:scale(egoistic) | 0.013 | 0.020 | 0.648 | 1022.596 | 0.517 |
| norm\_condition4:scale(egoistic) | 0.012 | 0.016 | 0.736 | 1030.887 | 0.462 |
| framing\_conditionFrameCode1:scale(hedonic) | 0.005 | 0.090 | 0.057 | 786.345 | 0.955 |
| framing\_conditionFrameCode2:scale(hedonic) | 0.102 | 0.075 | 1.358 | 989.646 | 0.175 |
| norm\_condition1:scale(hedonic) | 0.012 | 0.060 | 0.197 | 841.254 | 0.844 |
| norm\_condition2:scale(hedonic) | 0.042 | 0.032 | 1.298 | 943.102 | 0.194 |
| norm\_condition3:scale(hedonic) | -0.030 | 0.024 | -1.243 | 935.700 | 0.214 |
| norm\_condition4:scale(hedonic) | -0.031 | 0.017 | -1.845 | 999.906 | 0.065 |
| framing\_conditionFrameCode1:scale(ingroup\_identification) | 0.021 | 0.070 | 0.296 | 1033.245 | 0.768 |
| framing\_conditionFrameCode2:scale(ingroup\_identification) | -0.050 | 0.061 | -0.830 | 1032.970 | 0.407 |
| norm\_condition1:scale(ingroup\_identification) | 0.006 | 0.045 | 0.138 | 1018.457 | 0.890 |
| norm\_condition2:scale(ingroup\_identification) | -0.010 | 0.027 | -0.375 | 1032.672 | 0.708 |
| norm\_condition3:scale(ingroup\_identification) | 0.003 | 0.018 | 0.178 | 1035.604 | 0.859 |
| norm\_condition4:scale(ingroup\_identification) | -0.012 | 0.014 | -0.866 | 1030.704 | 0.387 |
| framing\_conditionFrameCode1:norm\_condition1:scale(biospheric) | -0.051 | 0.154 | -0.333 | 560.215 | 0.740 |
| framing\_conditionFrameCode2:norm\_condition1:scale(biospheric) | 0.028 | 0.121 | 0.236 | 995.388 | 0.814 |
| framing\_conditionFrameCode1:norm\_condition2:scale(biospheric) | -0.107 | 0.088 | -1.215 | 1031.274 | 0.225 |
| framing\_conditionFrameCode2:norm\_condition2:scale(biospheric) | 0.094 | 0.071 | 1.328 | 1029.342 | 0.184 |
| framing\_conditionFrameCode1:norm\_condition3:scale(biospheric) | 0.123 | 0.063 | 1.948 | 1026.128 | 0.052 |
| framing\_conditionFrameCode2:norm\_condition3:scale(biospheric) | 0.055 | 0.048 | 1.152 | 1024.648 | 0.250 |
| framing\_conditionFrameCode1:norm\_condition4:scale(biospheric) | 0.051 | 0.057 | 0.894 | 885.827 | 0.372 |
| framing\_conditionFrameCode2:norm\_condition4:scale(biospheric) | 0.096 | 0.040 | 2.401 | 1022.273 | 0.017 |
| framing\_conditionFrameCode1:norm\_condition1:scale(altruistic) | -0.062 | 0.176 | -0.350 | 228.571 | 0.727 |
| framing\_conditionFrameCode2:norm\_condition1:scale(altruistic) | 0.145 | 0.141 | 1.025 | 913.182 | 0.306 |
| framing\_conditionFrameCode1:norm\_condition2:scale(altruistic) | 0.169 | 0.095 | 1.788 | 965.532 | 0.074 |
| framing\_conditionFrameCode2:norm\_condition2:scale(altruistic) | 0.000 | 0.078 | 0.006 | 915.163 | 0.995 |
| framing\_conditionFrameCode1:norm\_condition3:scale(altruistic) | -0.108 | 0.072 | -1.488 | 1000.752 | 0.137 |
| framing\_conditionFrameCode2:norm\_condition3:scale(altruistic) | -0.044 | 0.058 | -0.767 | 956.664 | 0.443 |
| framing\_conditionFrameCode1:norm\_condition4:scale(altruistic) | -0.004 | 0.052 | -0.079 | 930.855 | 0.937 |
| framing\_conditionFrameCode2:norm\_condition4:scale(altruistic) | -0.057 | 0.039 | -1.450 | 1025.986 | 0.147 |
| framing\_conditionFrameCode1:norm\_condition1:scale(egoistic) | 0.038 | 0.139 | 0.273 | 439.596 | 0.785 |
| framing\_conditionFrameCode2:norm\_condition1:scale(egoistic) | 0.099 | 0.107 | 0.926 | 886.970 | 0.354 |
| framing\_conditionFrameCode1:norm\_condition2:scale(egoistic) | -0.014 | 0.068 | -0.199 | 1024.936 | 0.842 |
| framing\_conditionFrameCode2:norm\_condition2:scale(egoistic) | 0.126 | 0.060 | 2.091 | 1032.103 | 0.037 |
| framing\_conditionFrameCode1:norm\_condition3:scale(egoistic) | 0.063 | 0.049 | 1.277 | 1030.878 | 0.202 |
| framing\_conditionFrameCode2:norm\_condition3:scale(egoistic) | 0.020 | 0.043 | 0.464 | 1024.625 | 0.643 |
| framing\_conditionFrameCode1:norm\_condition4:scale(egoistic) | -0.046 | 0.041 | -1.109 | 983.320 | 0.268 |
| framing\_conditionFrameCode2:norm\_condition4:scale(egoistic) | -0.030 | 0.033 | -0.913 | 1035.400 | 0.361 |
| framing\_conditionFrameCode1:norm\_condition1:scale(hedonic) | -0.006 | 0.151 | -0.042 | 491.136 | 0.966 |
| framing\_conditionFrameCode2:norm\_condition1:scale(hedonic) | -0.150 | 0.127 | -1.175 | 902.901 | 0.240 |
| framing\_conditionFrameCode1:norm\_condition2:scale(hedonic) | -0.090 | 0.079 | -1.143 | 910.755 | 0.253 |
| framing\_conditionFrameCode2:norm\_condition2:scale(hedonic) | -0.001 | 0.069 | -0.012 | 994.454 | 0.991 |
| framing\_conditionFrameCode1:norm\_condition3:scale(hedonic) | -0.079 | 0.059 | -1.325 | 980.311 | 0.186 |
| framing\_conditionFrameCode2:norm\_condition3:scale(hedonic) | -0.002 | 0.049 | -0.042 | 975.418 | 0.966 |
| framing\_conditionFrameCode1:norm\_condition4:scale(hedonic) | -0.006 | 0.042 | -0.132 | 947.959 | 0.895 |
| framing\_conditionFrameCode2:norm\_condition4:scale(hedonic) | 0.024 | 0.035 | 0.675 | 1013.052 | 0.500 |
| framing\_conditionFrameCode1:norm\_condition1:scale(ingroup\_identification) | 0.159 | 0.109 | 1.452 | 997.017 | 0.147 |
| framing\_conditionFrameCode2:norm\_condition1:scale(ingroup\_identification) | 0.031 | 0.096 | 0.325 | 1029.862 | 0.745 |
| framing\_conditionFrameCode1:norm\_condition2:scale(ingroup\_identification) | 0.102 | 0.066 | 1.537 | 1012.502 | 0.125 |
| framing\_conditionFrameCode2:norm\_condition2:scale(ingroup\_identification) | -0.028 | 0.055 | -0.504 | 1035.548 | 0.614 |
| framing\_conditionFrameCode1:norm\_condition3:scale(ingroup\_identification) | 0.031 | 0.045 | 0.691 | 1008.764 | 0.490 |
| framing\_conditionFrameCode2:norm\_condition3:scale(ingroup\_identification) | -0.025 | 0.039 | -0.646 | 1035.264 | 0.519 |
| framing\_conditionFrameCode1:norm\_condition4:scale(ingroup\_identification) | -0.075 | 0.034 | -2.212 | 1024.410 | 0.027 |
| framing\_conditionFrameCode2:norm\_condition4:scale(ingroup\_identification) | 0.034 | 0.030 | 1.120 | 1035.637 | 0.263 |

APA style table for regression summary

apa\_table(pool\_summ\_std,  
 caption = "Table 1b Pooled Standardized Regression Results",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-33)

*Table 1b Pooled Standardized Regression Results*

| term | estimate | std.error | statistic | df | p.value |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -0.02 | 0.03 | -0.73 | 1,023.94 | 0.47 |
| framing\_conditionFrameCode1 | 0.03 | 0.07 | 0.41 | 1,034.11 | 0.68 |
| framing\_conditionFrameCode2 | 0.11 | 0.06 | 1.93 | 1,029.29 | 0.05 |
| norm\_condition1 | -0.01 | 0.04 | -0.29 | 1,032.67 | 0.77 |
| norm\_condition2 | 0.02 | 0.03 | 0.94 | 1,033.71 | 0.35 |
| norm\_condition3 | -0.04 | 0.02 | -1.98 | 1,023.06 | 0.05 |
| norm\_condition4 | -0.01 | 0.01 | -0.90 | 1,028.32 | 0.37 |
| scale(biospheric) | 0.30 | 0.04 | 7.79 | 1,015.17 | 0.00 |
| scale(altruistic) | 0.05 | 0.04 | 1.23 | 867.75 | 0.22 |
| scale(egoistic) | -0.23 | 0.03 | -6.93 | 1,024.59 | 0.00 |
| scale(hedonic) | -0.06 | 0.04 | -1.70 | 930.73 | 0.09 |
| scale(ingroup\_identification) | 0.02 | 0.03 | 0.83 | 953.00 | 0.41 |
| scale(self\_deceptive\_sdr) | -0.08 | 0.03 | -2.54 | 926.27 | 0.01 |
| scale(impress\_manag\_sdr) | -0.01 | 0.03 | -0.35 | 1,004.91 | 0.72 |
| scale(clothing\_interest) | 0.00 | 0.03 | 0.08 | 1,034.67 | 0.94 |
| Gender1 | 0.12 | 0.07 | 1.91 | 717.44 | 0.06 |
| scale(Age) | -0.07 | 0.03 | -1.96 | 66.79 | 0.05 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.17 | 0.11 | 1.57 | 1,034.21 | 0.12 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.09 | 0.09 | -0.95 | 1,034.86 | 0.34 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.06 | -0.07 | 1,028.05 | 0.95 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.03 | 0.05 | -0.59 | 1,033.89 | 0.55 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.02 | 0.04 | 0.51 | 1,025.32 | 0.61 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.04 | 0.51 | 1,030.22 | 0.61 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.02 | 0.04 | 0.66 | 998.65 | 0.51 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.01 | 0.03 | -0.44 | 1,024.29 | 0.66 |
| framing\_conditionFrameCode1:scale(biospheric) | -0.04 | 0.10 | -0.39 | 794.64 | 0.69 |
| framing\_conditionFrameCode2:scale(biospheric) | 0.05 | 0.08 | 0.68 | 1,008.17 | 0.50 |
| norm\_condition1:scale(biospheric) | -0.06 | 0.06 | -0.99 | 930.92 | 0.32 |
| norm\_condition2:scale(biospheric) | 0.07 | 0.03 | 1.88 | 1,031.20 | 0.06 |
| norm\_condition3:scale(biospheric) | -0.04 | 0.02 | -1.69 | 983.69 | 0.09 |
| norm\_condition4:scale(biospheric) | -0.04 | 0.02 | -1.71 | 993.12 | 0.09 |
| framing\_conditionFrameCode1:scale(altruistic) | 0.01 | 0.11 | 0.12 | 809.70 | 0.90 |
| framing\_conditionFrameCode2:scale(altruistic) | -0.09 | 0.09 | -1.04 | 971.16 | 0.30 |
| norm\_condition1:scale(altruistic) | -0.09 | 0.07 | -1.26 | 630.52 | 0.21 |
| norm\_condition2:scale(altruistic) | -0.01 | 0.04 | -0.28 | 784.67 | 0.78 |
| norm\_condition3:scale(altruistic) | 0.02 | 0.03 | 0.73 | 924.52 | 0.47 |
| norm\_condition4:scale(altruistic) | 0.05 | 0.02 | 2.27 | 984.73 | 0.02 |
| framing\_conditionFrameCode1:scale(egoistic) | -0.03 | 0.08 | -0.33 | 991.08 | 0.75 |
| framing\_conditionFrameCode2:scale(egoistic) | 0.04 | 0.07 | 0.54 | 1,019.91 | 0.59 |
| norm\_condition1:scale(egoistic) | 0.04 | 0.05 | 0.73 | 613.12 | 0.47 |
| norm\_condition2:scale(egoistic) | -0.01 | 0.03 | -0.45 | 982.37 | 0.65 |
| norm\_condition3:scale(egoistic) | 0.01 | 0.02 | 0.65 | 1,022.60 | 0.52 |
| norm\_condition4:scale(egoistic) | 0.01 | 0.02 | 0.74 | 1,030.89 | 0.46 |
| framing\_conditionFrameCode1:scale(hedonic) | 0.01 | 0.09 | 0.06 | 786.34 | 0.95 |
| framing\_conditionFrameCode2:scale(hedonic) | 0.10 | 0.08 | 1.36 | 989.65 | 0.17 |
| norm\_condition1:scale(hedonic) | 0.01 | 0.06 | 0.20 | 841.25 | 0.84 |
| norm\_condition2:scale(hedonic) | 0.04 | 0.03 | 1.30 | 943.10 | 0.19 |
| norm\_condition3:scale(hedonic) | -0.03 | 0.02 | -1.24 | 935.70 | 0.21 |
| norm\_condition4:scale(hedonic) | -0.03 | 0.02 | -1.84 | 999.91 | 0.07 |
| framing\_conditionFrameCode1:scale(ingroup\_identification) | 0.02 | 0.07 | 0.30 | 1,033.25 | 0.77 |
| framing\_conditionFrameCode2:scale(ingroup\_identification) | -0.05 | 0.06 | -0.83 | 1,032.97 | 0.41 |
| norm\_condition1:scale(ingroup\_identification) | 0.01 | 0.04 | 0.14 | 1,018.46 | 0.89 |
| norm\_condition2:scale(ingroup\_identification) | -0.01 | 0.03 | -0.38 | 1,032.67 | 0.71 |
| norm\_condition3:scale(ingroup\_identification) | 0.00 | 0.02 | 0.18 | 1,035.60 | 0.86 |
| norm\_condition4:scale(ingroup\_identification) | -0.01 | 0.01 | -0.87 | 1,030.70 | 0.39 |
| framing\_conditionFrameCode1:norm\_condition1:scale(biospheric) | -0.05 | 0.15 | -0.33 | 560.22 | 0.74 |
| framing\_conditionFrameCode2:norm\_condition1:scale(biospheric) | 0.03 | 0.12 | 0.24 | 995.39 | 0.81 |
| framing\_conditionFrameCode1:norm\_condition2:scale(biospheric) | -0.11 | 0.09 | -1.21 | 1,031.27 | 0.22 |
| framing\_conditionFrameCode2:norm\_condition2:scale(biospheric) | 0.09 | 0.07 | 1.33 | 1,029.34 | 0.18 |
| framing\_conditionFrameCode1:norm\_condition3:scale(biospheric) | 0.12 | 0.06 | 1.95 | 1,026.13 | 0.05 |
| framing\_conditionFrameCode2:norm\_condition3:scale(biospheric) | 0.06 | 0.05 | 1.15 | 1,024.65 | 0.25 |
| framing\_conditionFrameCode1:norm\_condition4:scale(biospheric) | 0.05 | 0.06 | 0.89 | 885.83 | 0.37 |
| framing\_conditionFrameCode2:norm\_condition4:scale(biospheric) | 0.10 | 0.04 | 2.40 | 1,022.27 | 0.02 |
| framing\_conditionFrameCode1:norm\_condition1:scale(altruistic) | -0.06 | 0.18 | -0.35 | 228.57 | 0.73 |
| framing\_conditionFrameCode2:norm\_condition1:scale(altruistic) | 0.14 | 0.14 | 1.03 | 913.18 | 0.31 |
| framing\_conditionFrameCode1:norm\_condition2:scale(altruistic) | 0.17 | 0.09 | 1.79 | 965.53 | 0.07 |
| framing\_conditionFrameCode2:norm\_condition2:scale(altruistic) | 0.00 | 0.08 | 0.01 | 915.16 | 0.99 |
| framing\_conditionFrameCode1:norm\_condition3:scale(altruistic) | -0.11 | 0.07 | -1.49 | 1,000.75 | 0.14 |
| framing\_conditionFrameCode2:norm\_condition3:scale(altruistic) | -0.04 | 0.06 | -0.77 | 956.66 | 0.44 |
| framing\_conditionFrameCode1:norm\_condition4:scale(altruistic) | 0.00 | 0.05 | -0.08 | 930.85 | 0.94 |
| framing\_conditionFrameCode2:norm\_condition4:scale(altruistic) | -0.06 | 0.04 | -1.45 | 1,025.99 | 0.15 |
| framing\_conditionFrameCode1:norm\_condition1:scale(egoistic) | 0.04 | 0.14 | 0.27 | 439.60 | 0.78 |
| framing\_conditionFrameCode2:norm\_condition1:scale(egoistic) | 0.10 | 0.11 | 0.93 | 886.97 | 0.35 |
| framing\_conditionFrameCode1:norm\_condition2:scale(egoistic) | -0.01 | 0.07 | -0.20 | 1,024.94 | 0.84 |
| framing\_conditionFrameCode2:norm\_condition2:scale(egoistic) | 0.13 | 0.06 | 2.09 | 1,032.10 | 0.04 |
| framing\_conditionFrameCode1:norm\_condition3:scale(egoistic) | 0.06 | 0.05 | 1.28 | 1,030.88 | 0.20 |
| framing\_conditionFrameCode2:norm\_condition3:scale(egoistic) | 0.02 | 0.04 | 0.46 | 1,024.62 | 0.64 |
| framing\_conditionFrameCode1:norm\_condition4:scale(egoistic) | -0.05 | 0.04 | -1.11 | 983.32 | 0.27 |
| framing\_conditionFrameCode2:norm\_condition4:scale(egoistic) | -0.03 | 0.03 | -0.91 | 1,035.40 | 0.36 |
| framing\_conditionFrameCode1:norm\_condition1:scale(hedonic) | -0.01 | 0.15 | -0.04 | 491.14 | 0.97 |
| framing\_conditionFrameCode2:norm\_condition1:scale(hedonic) | -0.15 | 0.13 | -1.18 | 902.90 | 0.24 |
| framing\_conditionFrameCode1:norm\_condition2:scale(hedonic) | -0.09 | 0.08 | -1.14 | 910.75 | 0.25 |
| framing\_conditionFrameCode2:norm\_condition2:scale(hedonic) | 0.00 | 0.07 | -0.01 | 994.45 | 0.99 |
| framing\_conditionFrameCode1:norm\_condition3:scale(hedonic) | -0.08 | 0.06 | -1.32 | 980.31 | 0.19 |
| framing\_conditionFrameCode2:norm\_condition3:scale(hedonic) | 0.00 | 0.05 | -0.04 | 975.42 | 0.97 |
| framing\_conditionFrameCode1:norm\_condition4:scale(hedonic) | -0.01 | 0.04 | -0.13 | 947.96 | 0.90 |
| framing\_conditionFrameCode2:norm\_condition4:scale(hedonic) | 0.02 | 0.04 | 0.67 | 1,013.05 | 0.50 |
| framing\_conditionFrameCode1:norm\_condition1:scale(ingroup\_identification) | 0.16 | 0.11 | 1.45 | 997.02 | 0.15 |
| framing\_conditionFrameCode2:norm\_condition1:scale(ingroup\_identification) | 0.03 | 0.10 | 0.32 | 1,029.86 | 0.75 |
| framing\_conditionFrameCode1:norm\_condition2:scale(ingroup\_identification) | 0.10 | 0.07 | 1.54 | 1,012.50 | 0.12 |
| framing\_conditionFrameCode2:norm\_condition2:scale(ingroup\_identification) | -0.03 | 0.06 | -0.50 | 1,035.55 | 0.61 |
| framing\_conditionFrameCode1:norm\_condition3:scale(ingroup\_identification) | 0.03 | 0.05 | 0.69 | 1,008.76 | 0.49 |
| framing\_conditionFrameCode2:norm\_condition3:scale(ingroup\_identification) | -0.03 | 0.04 | -0.65 | 1,035.26 | 0.52 |
| framing\_conditionFrameCode1:norm\_condition4:scale(ingroup\_identification) | -0.08 | 0.03 | -2.21 | 1,024.41 | 0.03 |
| framing\_conditionFrameCode2:norm\_condition4:scale(ingroup\_identification) | 0.03 | 0.03 | 1.12 | 1,035.64 | 0.26 |

*Note.* DV = Consumer Intentions

## Pooled Anova Results

Using Anova()

doesn’t have a pooling option

# anova\_mod2

Using mi.anova()

* Uses D2 test

anova\_mod3 %>%  
 knitr::kable(digits = c(2, 2, 2, 2, 3, 3, 3))

| x |
| --- |
| 0.18 |

|  | SSQ | df1 | df2 | F value | Pr(>F) | eta2 | partial.eta2 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 4.45 | 2 | 277911.15 | 1.94 | 0.144 | 0.003 | 0.004 |
| norm\_condition | 6.52 | 4 | 71957.17 | 1.41 | 0.227 | 0.005 | 0.005 |
| biospheric\_center | 69.70 | 1 | 182541.21 | 60.76 | 0.000 | 0.048 | 0.056 |
| altruistic\_center | 1.79 | 1 | 4948.63 | 1.48 | 0.224 | 0.001 | 0.002 |
| egoistic\_center | 55.16 | 1 | 117647.58 | 48.03 | 0.000 | 0.038 | 0.044 |
| hedonic\_center | 3.39 | 1 | 10965.18 | 2.88 | 0.090 | 0.002 | 0.003 |
| ingroup\_center | 0.80 | 1 | 15534.19 | 0.67 | 0.413 | 0.001 | 0.001 |
| self\_dec\_center | 7.50 | 1 | 10820.41 | 6.41 | 0.011 | 0.005 | 0.006 |
| impress\_manag\_center | 0.15 | 1 | 48583.18 | 0.12 | 0.732 | 0.000 | 0.000 |
| clothing\_center | 0.01 | 1 | 3781093.85 | 0.01 | 0.942 | 0.000 | 0.000 |
| Gender | 4.35 | 1 | 2572.87 | 3.60 | 0.058 | 0.003 | 0.004 |
| Age\_center | 5.96 | 1 | 71.04 | 3.63 | 0.061 | 0.004 | 0.005 |
| framing\_condition:norm\_condition | 5.70 | 8 | 55071.52 | 0.61 | 0.767 | 0.004 | 0.005 |
| framing\_condition:biospheric\_center | 0.74 | 2 | 3277.29 | 0.27 | 0.761 | 0.001 | 0.001 |
| norm\_condition:biospheric\_center | 11.75 | 4 | 97395.31 | 2.56 | 0.037 | 0.008 | 0.010 |
| framing\_condition:altruistic\_center | 1.29 | 2 | 6519.70 | 0.52 | 0.592 | 0.001 | 0.001 |
| norm\_condition:altruistic\_center | 9.15 | 4 | 9084.58 | 1.96 | 0.098 | 0.006 | 0.008 |
| framing\_condition:egoistic\_center | 0.48 | 2 | 15139.30 | 0.19 | 0.831 | 0.000 | 0.000 |
| norm\_condition:egoistic\_center | 2.16 | 4 | 8536.54 | 0.44 | 0.776 | 0.001 | 0.002 |
| framing\_condition:hedonic\_center | 2.18 | 2 | 21454.97 | 0.93 | 0.396 | 0.002 | 0.002 |
| norm\_condition:hedonic\_center | 8.19 | 4 | 22945.86 | 1.76 | 0.133 | 0.006 | 0.007 |
| framing\_condition:ingroup\_center | 0.88 | 2 | 493256.84 | 0.38 | 0.685 | 0.001 | 0.001 |
| norm\_condition:ingroup\_center | 1.08 | 4 | 363457.46 | 0.23 | 0.920 | 0.001 | 0.001 |
| framing\_condition:norm\_condition:biospheric\_center | 17.32 | 8 | 345248.97 | 1.89 | 0.057 | 0.012 | 0.014 |
| framing\_condition:norm\_condition:altruistic\_center | 11.73 | 8 | 16665.70 | 1.26 | 0.259 | 0.008 | 0.010 |
| framing\_condition:norm\_condition:egoistic\_center | 11.33 | 8 | 28094.95 | 1.22 | 0.280 | 0.008 | 0.009 |
| framing\_condition:norm\_condition:hedonic\_center | 6.00 | 8 | 5510.08 | 0.63 | 0.757 | 0.004 | 0.005 |
| framing\_condition:norm\_condition:ingroup\_center | 13.04 | 8 | 13143.09 | 1.40 | 0.190 | 0.009 | 0.011 |
| Residual | 1184.90 | NA | NA | NA | NA | NA | NA |

| x |
| --- |
| 3 |

# Analysis in each imputed data set

## Imputed Data 1

### Regression summary

Succinct summary

summary\_imp1\_print <- summary\_imp1$coefficients  
  
summary\_imp1\_print %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Estimate | Std. Error | t value | Pr(>|t|) |
| --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.06 | 0.000 |
| framing\_conditionFrameCode1 | 0.03 | 0.08 | 0.39 | 0.694 |
| framing\_conditionFrameCode2 | 0.13 | 0.07 | 1.93 | 0.054 |
| norm\_condition1 | -0.01 | 0.05 | -0.24 | 0.810 |
| norm\_condition2 | 0.03 | 0.03 | 0.91 | 0.363 |
| norm\_condition3 | -0.04 | 0.02 | -2.09 | 0.037 |
| norm\_condition4 | -0.02 | 0.02 | -0.98 | 0.327 |
| biospheric\_center | 0.36 | 0.05 | 7.71 | 0.000 |
| altruistic\_center | 0.08 | 0.06 | 1.27 | 0.206 |
| egoistic\_center | -0.29 | 0.04 | -6.83 | 0.000 |
| hedonic\_center | -0.08 | 0.05 | -1.57 | 0.117 |
| ingroup\_center | 0.03 | 0.03 | 0.78 | 0.436 |
| self\_dec\_center | -0.12 | 0.04 | -2.73 | 0.006 |
| impress\_manag\_center | -0.01 | 0.04 | -0.29 | 0.773 |
| clothing\_center | 0.01 | 0.04 | 0.12 | 0.908 |
| Gender1 | 0.14 | 0.08 | 1.90 | 0.058 |
| Age\_center | -0.04 | 0.02 | -2.39 | 0.017 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.20 | 0.13 | 1.60 | 0.110 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.11 | 0.11 | -0.97 | 0.334 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.08 | -0.06 | 0.949 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.04 | 0.06 | -0.56 | 0.572 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.03 | 0.05 | 0.55 | 0.580 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.03 | 0.05 | 0.59 | 0.556 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.02 | 0.04 | 0.58 | 0.560 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.02 | 0.03 | -0.44 | 0.662 |
| framing\_conditionFrameCode1:biospheric\_center | -0.06 | 0.12 | -0.54 | 0.589 |
| framing\_conditionFrameCode2:biospheric\_center | 0.07 | 0.09 | 0.75 | 0.452 |
| norm\_condition1:biospheric\_center | -0.08 | 0.07 | -1.07 | 0.285 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.93 | 0.054 |
| norm\_condition3:biospheric\_center | -0.05 | 0.03 | -1.68 | 0.092 |
| norm\_condition4:biospheric\_center | -0.04 | 0.03 | -1.67 | 0.095 |
| framing\_conditionFrameCode1:altruistic\_center | 0.02 | 0.16 | 0.15 | 0.878 |
| framing\_conditionFrameCode2:altruistic\_center | -0.13 | 0.13 | -1.07 | 0.287 |
| norm\_condition1:altruistic\_center | -0.14 | 0.10 | -1.39 | 0.165 |
| norm\_condition2:altruistic\_center | -0.02 | 0.06 | -0.28 | 0.776 |
| norm\_condition3:altruistic\_center | 0.03 | 0.04 | 0.73 | 0.466 |
| norm\_condition4:altruistic\_center | 0.06 | 0.03 | 2.15 | 0.032 |
| framing\_conditionFrameCode1:egoistic\_center | -0.02 | 0.10 | -0.17 | 0.862 |
| framing\_conditionFrameCode2:egoistic\_center | 0.04 | 0.09 | 0.47 | 0.641 |
| norm\_condition1:egoistic\_center | 0.07 | 0.07 | 0.97 | 0.333 |
| norm\_condition2:egoistic\_center | -0.02 | 0.04 | -0.54 | 0.589 |
| norm\_condition3:egoistic\_center | 0.01 | 0.03 | 0.53 | 0.595 |
| norm\_condition4:egoistic\_center | 0.02 | 0.02 | 0.75 | 0.455 |
| framing\_conditionFrameCode1:hedonic\_center | 0.03 | 0.13 | 0.19 | 0.849 |
| framing\_conditionFrameCode2:hedonic\_center | 0.14 | 0.11 | 1.28 | 0.202 |
| norm\_condition1:hedonic\_center | 0.01 | 0.09 | 0.11 | 0.916 |
| norm\_condition2:hedonic\_center | 0.06 | 0.05 | 1.22 | 0.223 |
| norm\_condition3:hedonic\_center | -0.04 | 0.04 | -1.27 | 0.205 |
| norm\_condition4:hedonic\_center | -0.04 | 0.02 | -1.78 | 0.076 |
| framing\_conditionFrameCode1:ingroup\_center | 0.03 | 0.08 | 0.31 | 0.758 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.79 | 0.431 |
| norm\_condition1:ingroup\_center | 0.00 | 0.05 | 0.09 | 0.927 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.33 | 0.740 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.17 | 0.863 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.90 | 0.368 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.08 | 0.18 | -0.48 | 0.635 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.04 | 0.14 | 0.30 | 0.765 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.12 | 0.11 | -1.14 | 0.254 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.11 | 0.08 | 1.28 | 0.202 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.15 | 0.08 | 2.00 | 0.046 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.07 | 0.06 | 1.19 | 0.236 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.06 | 0.07 | 0.92 | 0.360 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.11 | 0.05 | 2.40 | 0.016 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.12 | 0.25 | -0.48 | 0.631 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.23 | 0.21 | 1.13 | 0.260 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.25 | 0.14 | 1.78 | 0.075 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | 0.00 | 0.11 | 0.01 | 0.995 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.16 | 0.11 | -1.55 | 0.122 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.07 | 0.08 | -0.79 | 0.430 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | -0.01 | 0.08 | -0.20 | 0.845 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.08 | 0.06 | -1.37 | 0.170 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.09 | 0.17 | 0.53 | 0.594 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.10 | 0.14 | 0.75 | 0.450 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.02 | 0.09 | -0.27 | 0.788 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.17 | 0.08 | 2.15 | 0.032 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.31 | 0.190 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.03 | 0.06 | 0.58 | 0.565 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.06 | 0.05 | -1.18 | 0.240 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.90 | 0.370 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | -0.03 | 0.22 | -0.15 | 0.882 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.21 | 0.19 | -1.11 | 0.266 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.15 | 0.12 | -1.29 | 0.199 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | 0.01 | 0.10 | 0.07 | 0.946 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.13 | 0.09 | -1.42 | 0.157 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | 0.00 | 0.07 | -0.05 | 0.960 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | 0.00 | 0.06 | -0.04 | 0.967 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.03 | 0.05 | 0.61 | 0.540 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.19 | 0.13 | 1.50 | 0.135 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.04 | 0.11 | 0.37 | 0.708 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.12 | 0.08 | 1.57 | 0.118 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.52 | 0.601 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.04 | 0.05 | 0.71 | 0.479 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.67 | 0.503 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.31 | 0.021 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.13 | 0.258 |

APA style table for regression summary

apa\_summ\_imp1 <- apa\_print(summary\_imp1)  
  
apa\_summ\_imp1$table %>%  
apa\_table(caption = "Table 2 Regression Results Using Imputed Data 1",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-41)

*Table 2 Regression Results Using Imputed Data 1*

| Predictor |  | 95% CI |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Intercept | 4.39 | [4.32, 4.45] | 128.06 | 1038 | < .001 |
| Framing conditionFrameCode1 | 0.03 | [-0.13, 0.19] | 0.39 | 1038 | .694 |
| Framing conditionFrameCode2 | 0.13 | [0.00, 0.27] | 1.93 | 1038 | .054 |
| Norm condition1 | -0.01 | [-0.11, 0.09] | -0.24 | 1038 | .810 |
| Norm condition2 | 0.03 | [-0.03, 0.09] | 0.91 | 1038 | .363 |
| Norm condition3 | -0.04 | [-0.09, 0.00] | -2.09 | 1038 | .037 |
| Norm condition4 | -0.02 | [-0.05, 0.02] | -0.98 | 1038 | .327 |
| Biospheric center | 0.36 | [0.27, 0.45] | 7.71 | 1038 | < .001 |
| Altruistic center | 0.08 | [-0.04, 0.20] | 1.27 | 1038 | .206 |
| Egoistic center | -0.29 | [-0.38, -0.21] | -6.83 | 1038 | < .001 |
| Hedonic center | -0.08 | [-0.19, 0.02] | -1.57 | 1038 | .117 |
| Ingroup center | 0.03 | [-0.04, 0.09] | 0.78 | 1038 | .436 |
| Self dec center | -0.12 | [-0.20, -0.03] | -2.73 | 1038 | .006 |
| Impress manag center | -0.01 | [-0.09, 0.07] | -0.29 | 1038 | .773 |
| Clothing center | 0.01 | [-0.08, 0.09] | 0.12 | 1038 | .908 |
| Gender1 | 0.14 | [0.00, 0.29] | 1.90 | 1038 | .058 |
| Age center | -0.04 | [-0.08, -0.01] | -2.39 | 1038 | .017 |
| Framing conditionFrameCode1 Norm condition1 | 0.20 | [-0.05, 0.45] | 1.60 | 1038 | .110 |
| Framing conditionFrameCode2 Norm condition1 | -0.11 | [-0.32, 0.11] | -0.97 | 1038 | .334 |
| Framing conditionFrameCode1 Norm condition2 | 0.00 | [-0.15, 0.14] | -0.06 | 1038 | .949 |
| Framing conditionFrameCode2 Norm condition2 | -0.04 | [-0.16, 0.09] | -0.56 | 1038 | .572 |
| Framing conditionFrameCode1 Norm condition3 | 0.03 | [-0.07, 0.13] | 0.55 | 1038 | .580 |
| Framing conditionFrameCode2 Norm condition3 | 0.03 | [-0.06, 0.12] | 0.59 | 1038 | .556 |
| Framing conditionFrameCode1 Norm condition4 | 0.02 | [-0.06, 0.11] | 0.58 | 1038 | .560 |
| Framing conditionFrameCode2 Norm condition4 | -0.02 | [-0.08, 0.05] | -0.44 | 1038 | .662 |
| Framing conditionFrameCode1 Biospheric center | -0.06 | [-0.30, 0.17] | -0.54 | 1038 | .589 |
| Framing conditionFrameCode2 Biospheric center | 0.07 | [-0.11, 0.25] | 0.75 | 1038 | .452 |
| Norm condition1 Biospheric center | -0.08 | [-0.21, 0.06] | -1.07 | 1038 | .285 |
| Norm condition2 Biospheric center | 0.08 | [0.00, 0.16] | 1.93 | 1038 | .054 |
| Norm condition3 Biospheric center | -0.05 | [-0.11, 0.01] | -1.68 | 1038 | .092 |
| Norm condition4 Biospheric center | -0.04 | [-0.09, 0.01] | -1.67 | 1038 | .095 |
| Framing conditionFrameCode1 Altruistic center | 0.02 | [-0.28, 0.33] | 0.15 | 1038 | .878 |
| Framing conditionFrameCode2 Altruistic center | -0.13 | [-0.38, 0.11] | -1.07 | 1038 | .287 |
| Norm condition1 Altruistic center | -0.14 | [-0.33, 0.06] | -1.39 | 1038 | .165 |
| Norm condition2 Altruistic center | -0.02 | [-0.12, 0.09] | -0.28 | 1038 | .776 |
| Norm condition3 Altruistic center | 0.03 | [-0.05, 0.11] | 0.73 | 1038 | .466 |
| Norm condition4 Altruistic center | 0.06 | [0.01, 0.12] | 2.15 | 1038 | .032 |
| Framing conditionFrameCode1 Egoistic center | -0.02 | [-0.22, 0.18] | -0.17 | 1038 | .862 |
| Framing conditionFrameCode2 Egoistic center | 0.04 | [-0.13, 0.21] | 0.47 | 1038 | .641 |
| Norm condition1 Egoistic center | 0.07 | [-0.07, 0.20] | 0.97 | 1038 | .333 |
| Norm condition2 Egoistic center | -0.02 | [-0.09, 0.05] | -0.54 | 1038 | .589 |
| Norm condition3 Egoistic center | 0.01 | [-0.04, 0.07] | 0.53 | 1038 | .595 |
| Norm condition4 Egoistic center | 0.02 | [-0.03, 0.06] | 0.75 | 1038 | .455 |
| Framing conditionFrameCode1 Hedonic center | 0.03 | [-0.23, 0.28] | 0.19 | 1038 | .849 |
| Framing conditionFrameCode2 Hedonic center | 0.14 | [-0.08, 0.36] | 1.28 | 1038 | .202 |
| Norm condition1 Hedonic center | 0.01 | [-0.17, 0.19] | 0.11 | 1038 | .916 |
| Norm condition2 Hedonic center | 0.06 | [-0.04, 0.15] | 1.22 | 1038 | .223 |
| Norm condition3 Hedonic center | -0.04 | [-0.11, 0.02] | -1.27 | 1038 | .205 |
| Norm condition4 Hedonic center | -0.04 | [-0.09, 0.00] | -1.78 | 1038 | .076 |
| Framing conditionFrameCode1 Ingroup center | 0.03 | [-0.14, 0.19] | 0.31 | 1038 | .758 |
| Framing conditionFrameCode2 Ingroup center | -0.06 | [-0.20, 0.08] | -0.79 | 1038 | .431 |
| Norm condition1 Ingroup center | 0.00 | [-0.10, 0.11] | 0.09 | 1038 | .927 |
| Norm condition2 Ingroup center | -0.01 | [-0.07, 0.05] | -0.33 | 1038 | .740 |
| Norm condition3 Ingroup center | 0.00 | [-0.04, 0.05] | 0.17 | 1038 | .863 |
| Norm condition4 Ingroup center | -0.01 | [-0.05, 0.02] | -0.90 | 1038 | .368 |
| Framing conditionFrameCode1 Norm condition1 Biospheric center | -0.08 | [-0.44, 0.27] | -0.48 | 1038 | .635 |
| Framing conditionFrameCode2 Norm condition1 Biospheric center | 0.04 | [-0.24, 0.32] | 0.30 | 1038 | .765 |
| Framing conditionFrameCode1 Norm condition2 Biospheric center | -0.12 | [-0.33, 0.09] | -1.14 | 1038 | .254 |
| Framing conditionFrameCode2 Norm condition2 Biospheric center | 0.11 | [-0.06, 0.27] | 1.28 | 1038 | .202 |
| Framing conditionFrameCode1 Norm condition3 Biospheric center | 0.15 | [0.00, 0.30] | 2.00 | 1038 | .046 |
| Framing conditionFrameCode2 Norm condition3 Biospheric center | 0.07 | [-0.04, 0.18] | 1.19 | 1038 | .236 |
| Framing conditionFrameCode1 Norm condition4 Biospheric center | 0.06 | [-0.07, 0.19] | 0.92 | 1038 | .360 |
| Framing conditionFrameCode2 Norm condition4 Biospheric center | 0.11 | [0.02, 0.21] | 2.40 | 1038 | .016 |
| Framing conditionFrameCode1 Norm condition1 Altruistic center | -0.12 | [-0.60, 0.37] | -0.48 | 1038 | .631 |
| Framing conditionFrameCode2 Norm condition1 Altruistic center | 0.23 | [-0.17, 0.64] | 1.13 | 1038 | .260 |
| Framing conditionFrameCode1 Norm condition2 Altruistic center | 0.25 | [-0.02, 0.52] | 1.78 | 1038 | .075 |
| Framing conditionFrameCode2 Norm condition2 Altruistic center | 0.00 | [-0.22, 0.22] | 0.01 | 1038 | .995 |
| Framing conditionFrameCode1 Norm condition3 Altruistic center | -0.16 | [-0.37, 0.04] | -1.55 | 1038 | .122 |
| Framing conditionFrameCode2 Norm condition3 Altruistic center | -0.07 | [-0.23, 0.10] | -0.79 | 1038 | .430 |
| Framing conditionFrameCode1 Norm condition4 Altruistic center | -0.01 | [-0.16, 0.13] | -0.20 | 1038 | .845 |
| Framing conditionFrameCode2 Norm condition4 Altruistic center | -0.08 | [-0.19, 0.03] | -1.37 | 1038 | .170 |
| Framing conditionFrameCode1 Norm condition1 Egoistic center | 0.09 | [-0.25, 0.43] | 0.53 | 1038 | .594 |
| Framing conditionFrameCode2 Norm condition1 Egoistic center | 0.10 | [-0.17, 0.37] | 0.75 | 1038 | .450 |
| Framing conditionFrameCode1 Norm condition2 Egoistic center | -0.02 | [-0.20, 0.15] | -0.27 | 1038 | .788 |
| Framing conditionFrameCode2 Norm condition2 Egoistic center | 0.17 | [0.01, 0.32] | 2.15 | 1038 | .032 |
| Framing conditionFrameCode1 Norm condition3 Egoistic center | 0.08 | [-0.04, 0.21] | 1.31 | 1038 | .190 |
| Framing conditionFrameCode2 Norm condition3 Egoistic center | 0.03 | [-0.08, 0.14] | 0.58 | 1038 | .565 |
| Framing conditionFrameCode1 Norm condition4 Egoistic center | -0.06 | [-0.17, 0.04] | -1.18 | 1038 | .240 |
| Framing conditionFrameCode2 Norm condition4 Egoistic center | -0.04 | [-0.12, 0.05] | -0.90 | 1038 | .370 |
| Framing conditionFrameCode1 Norm condition1 Hedonic center | -0.03 | [-0.47, 0.40] | -0.15 | 1038 | .882 |
| Framing conditionFrameCode2 Norm condition1 Hedonic center | -0.21 | [-0.58, 0.16] | -1.11 | 1038 | .266 |
| Framing conditionFrameCode1 Norm condition2 Hedonic center | -0.15 | [-0.38, 0.08] | -1.29 | 1038 | .199 |
| Framing conditionFrameCode2 Norm condition2 Hedonic center | 0.01 | [-0.19, 0.21] | 0.07 | 1038 | .946 |
| Framing conditionFrameCode1 Norm condition3 Hedonic center | -0.13 | [-0.30, 0.05] | -1.42 | 1038 | .157 |
| Framing conditionFrameCode2 Norm condition3 Hedonic center | 0.00 | [-0.15, 0.14] | -0.05 | 1038 | .960 |
| Framing conditionFrameCode1 Norm condition4 Hedonic center | 0.00 | [-0.12, 0.12] | -0.04 | 1038 | .967 |
| Framing conditionFrameCode2 Norm condition4 Hedonic center | 0.03 | [-0.07, 0.13] | 0.61 | 1038 | .540 |
| Framing conditionFrameCode1 Norm condition1 Ingroup center | 0.19 | [-0.06, 0.44] | 1.50 | 1038 | .135 |
| Framing conditionFrameCode2 Norm condition1 Ingroup center | 0.04 | [-0.18, 0.26] | 0.37 | 1038 | .708 |
| Framing conditionFrameCode1 Norm condition2 Ingroup center | 0.12 | [-0.03, 0.27] | 1.57 | 1038 | .118 |
| Framing conditionFrameCode2 Norm condition2 Ingroup center | -0.03 | [-0.16, 0.09] | -0.52 | 1038 | .601 |
| Framing conditionFrameCode1 Norm condition3 Ingroup center | 0.04 | [-0.07, 0.14] | 0.71 | 1038 | .479 |
| Framing conditionFrameCode2 Norm condition3 Ingroup center | -0.03 | [-0.12, 0.06] | -0.67 | 1038 | .503 |
| Framing conditionFrameCode1 Norm condition4 Ingroup center | -0.09 | [-0.17, -0.01] | -2.31 | 1038 | .021 |
| Framing conditionFrameCode2 Norm condition4 Ingroup center | 0.04 | [-0.03, 0.11] | 1.13 | 1038 | .258 |

*Note.* DV = Consumer Intentions

Standardized regression coefficients

APA summary of standardized coefficients

### ANOVA summary

Anova(mod\_mice\_imp1, type = 3) %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18680.03 | 1 | 16399.87 | 0.000 |
| framing\_condition | 4.40 | 2 | 1.93 | 0.145 |
| norm\_condition | 7.06 | 4 | 1.55 | 0.186 |
| biospheric\_center | 67.68 | 1 | 59.42 | 0.000 |
| altruistic\_center | 1.83 | 1 | 1.60 | 0.206 |
| egoistic\_center | 53.20 | 1 | 46.71 | 0.000 |
| hedonic\_center | 2.81 | 1 | 2.47 | 0.117 |
| ingroup\_center | 0.69 | 1 | 0.61 | 0.436 |
| self\_dec\_center | 8.47 | 1 | 7.44 | 0.006 |
| impress\_manag\_center | 0.09 | 1 | 0.08 | 0.773 |
| clothing\_center | 0.02 | 1 | 0.01 | 0.908 |
| Gender | 4.10 | 1 | 3.60 | 0.058 |
| Age\_center | 6.49 | 1 | 5.70 | 0.017 |
| framing\_condition:norm\_condition | 5.77 | 8 | 0.63 | 0.750 |
| framing\_condition:biospheric\_center | 0.98 | 2 | 0.43 | 0.652 |
| norm\_condition:biospheric\_center | 11.80 | 4 | 2.59 | 0.035 |
| framing\_condition:altruistic\_center | 1.30 | 2 | 0.57 | 0.565 |
| norm\_condition:altruistic\_center | 8.64 | 4 | 1.90 | 0.109 |
| framing\_condition:egoistic\_center | 0.28 | 2 | 0.12 | 0.884 |
| norm\_condition:egoistic\_center | 2.49 | 4 | 0.55 | 0.702 |
| framing\_condition:hedonic\_center | 1.91 | 2 | 0.84 | 0.433 |
| norm\_condition:hedonic\_center | 7.55 | 4 | 1.66 | 0.158 |
| framing\_condition:ingroup\_center | 0.80 | 2 | 0.35 | 0.704 |
| norm\_condition:ingroup\_center | 1.09 | 4 | 0.24 | 0.916 |
| framing\_condition:norm\_condition:biospheric\_center | 17.29 | 8 | 1.90 | 0.057 |
| framing\_condition:norm\_condition:altruistic\_center | 11.83 | 8 | 1.30 | 0.240 |
| framing\_condition:norm\_condition:egoistic\_center | 11.78 | 8 | 1.29 | 0.243 |
| framing\_condition:norm\_condition:hedonic\_center | 6.19 | 8 | 0.68 | 0.710 |
| framing\_condition:norm\_condition:ingroup\_center | 13.75 | 8 | 1.51 | 0.150 |
| Residuals | 1182.32 | 1038 | NA | NA |

### Effect Size

etaSquared(mod\_mice\_imp1, type = 3, anova = TRUE) %>%   
 knitr::kable(digits = 3)

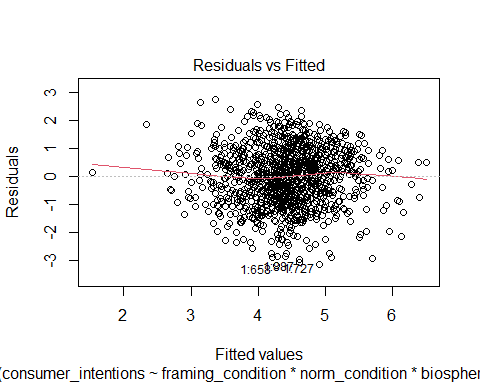
|  | eta.sq | eta.sq.part | SS | df | MS | F | p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 0.003 | 0.004 | 4.405 | 2 | 2.202 | 1.933 | 0.145 |
| norm\_condition | 0.004 | 0.006 | 7.056 | 4 | 1.764 | 1.549 | 0.186 |
| biospheric\_center | 0.042 | 0.054 | 67.677 | 1 | 67.677 | 59.416 | 0.000 |
| altruistic\_center | 0.001 | 0.002 | 1.827 | 1 | 1.827 | 1.604 | 0.206 |
| egoistic\_center | 0.033 | 0.043 | 53.200 | 1 | 53.200 | 46.706 | 0.000 |
| hedonic\_center | 0.002 | 0.002 | 2.808 | 1 | 2.808 | 2.465 | 0.117 |
| ingroup\_center | 0.000 | 0.001 | 0.691 | 1 | 0.691 | 0.607 | 0.436 |
| self\_dec\_center | 0.005 | 0.007 | 8.471 | 1 | 8.471 | 7.437 | 0.006 |
| impress\_manag\_center | 0.000 | 0.000 | 0.095 | 1 | 0.095 | 0.083 | 0.773 |
| clothing\_center | 0.000 | 0.000 | 0.015 | 1 | 0.015 | 0.013 | 0.908 |
| Gender | 0.003 | 0.003 | 4.102 | 1 | 4.102 | 3.602 | 0.058 |
| Age\_center | 0.004 | 0.005 | 6.492 | 1 | 6.492 | 5.700 | 0.017 |
| framing\_condition:norm\_condition | 0.004 | 0.005 | 5.773 | 8 | 0.722 | 0.634 | 0.750 |
| framing\_condition:biospheric\_center | 0.001 | 0.001 | 0.976 | 2 | 0.488 | 0.428 | 0.652 |
| norm\_condition:biospheric\_center | 0.007 | 0.010 | 11.796 | 4 | 2.949 | 2.589 | 0.035 |
| framing\_condition:altruistic\_center | 0.001 | 0.001 | 1.301 | 2 | 0.650 | 0.571 | 0.565 |
| norm\_condition:altruistic\_center | 0.005 | 0.007 | 8.645 | 4 | 2.161 | 1.897 | 0.109 |
| framing\_condition:egoistic\_center | 0.000 | 0.000 | 0.282 | 2 | 0.141 | 0.124 | 0.884 |
| norm\_condition:egoistic\_center | 0.002 | 0.002 | 2.488 | 4 | 0.622 | 0.546 | 0.702 |
| framing\_condition:hedonic\_center | 0.001 | 0.002 | 1.910 | 2 | 0.955 | 0.839 | 0.433 |
| norm\_condition:hedonic\_center | 0.005 | 0.006 | 7.549 | 4 | 1.887 | 1.657 | 0.158 |
| framing\_condition:ingroup\_center | 0.001 | 0.001 | 0.800 | 2 | 0.400 | 0.351 | 0.704 |
| norm\_condition:ingroup\_center | 0.001 | 0.001 | 1.089 | 4 | 0.272 | 0.239 | 0.916 |
| framing\_condition:norm\_condition:biospheric\_center | 0.011 | 0.014 | 17.294 | 8 | 2.162 | 1.898 | 0.057 |
| framing\_condition:norm\_condition:altruistic\_center | 0.007 | 0.010 | 11.834 | 8 | 1.479 | 1.299 | 0.240 |
| framing\_condition:norm\_condition:egoistic\_center | 0.007 | 0.010 | 11.783 | 8 | 1.473 | 1.293 | 0.243 |
| framing\_condition:norm\_condition:hedonic\_center | 0.004 | 0.005 | 6.189 | 8 | 0.774 | 0.679 | 0.710 |
| framing\_condition:norm\_condition:ingroup\_center | 0.009 | 0.011 | 13.747 | 8 | 1.718 | 1.509 | 0.150 |
| Residuals | 0.740 | NA | 1182.318 | 1038 | 1.139 | NA | NA |

### Regression Diagnostics

#### Checking non-linearity

First, assess non-linearity using a residuals plots:

par(mfrow = c(1,1))  
plot(mod\_mice\_imp1, 1)

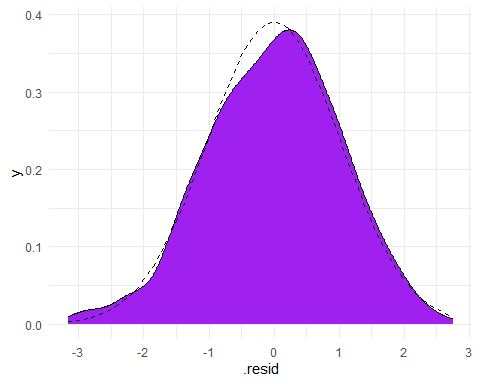


There does not appear to be a systematic pattern suggesting an uncaptured, non-linear trend.

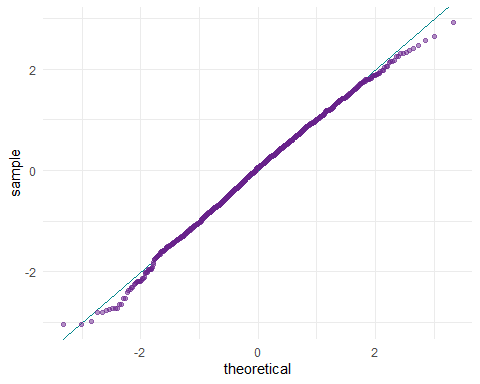
#### Checking non-normally distributed errors

Second, assess non-normally distributed errors by plotting the residuals & using a QQ-plot:

# storing residuals  
store\_residuals <- augment(mod\_mice\_imp1)  
  
# plotting histogram of residuals  
ggplot(data = store\_residuals, aes(x = .resid)) +   
 geom\_density(fill = "purple") +   
 stat\_function(linetype = 2,   
 fun = dnorm,   
 args = list(mean = mean(store\_residuals$.resid),   
 sd = sd(store\_residuals$.resid))) +  
 theme\_minimal()



# QQ-plot  
ggplot(mod\_mice\_imp1) +  
 geom\_abline(color = "turquoise4") +   
 stat\_qq(aes(sample = .stdresid), color = "darkorchid4", alpha = .50) +  
 theme\_minimal()

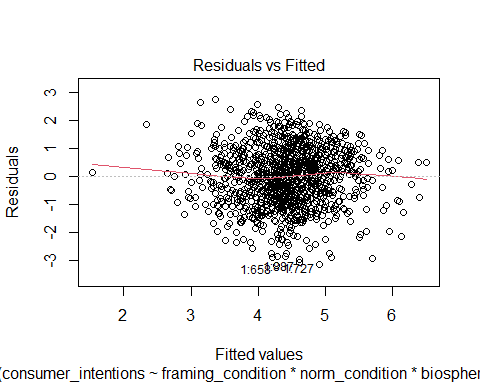


The distribution of residuals & QQ-plot suggest approximately normally distributed residuals.

#### Checking heteroscedasticity

Third, check for heteroscedasticity by looking at spread of residuals on residuals plot:

plot(mod\_mice\_imp1, 1)

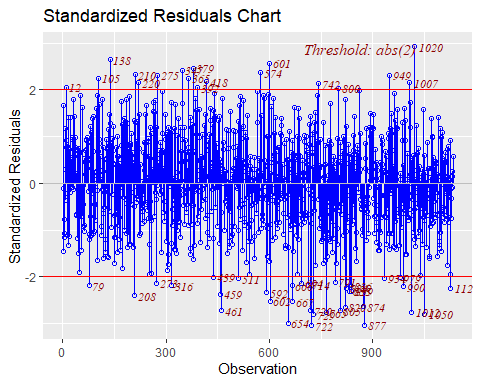


The spread of the residuals appears to be approximately the same across the range of fitted values.

#### Checking multivariate outliers

Outliers based on distance from model using standardized residuals:

# using olsrr function  
ols\_plot\_resid\_stand(mod\_mice\_imp1)



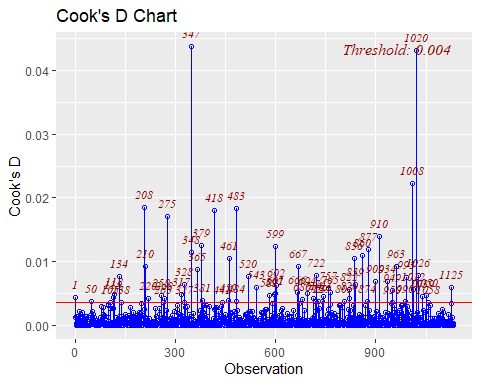
# or grabbing from model augment output  
model\_aug <- augment(mod\_mice\_imp1)  
  
model\_aug$id <- mod\_mice\_imp1$.rownames  
  
std\_resids <- model\_aug %>%   
 dplyr::select(.rownames, .std.resid) %>%  
 arrange(desc(abs(.std.resid)))  
  
print(std\_resids, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .std.resid  
## <chr> <dbl>  
## 1 1:727 -3.04  
## 2 1:887 -3.04  
## 3 1:658 -2.99  
## 4 1:1034 2.93  
## 5 1:734 -2.82  
## 6 1:1064 -2.81  
## 7 1:771 -2.77  
## 8 1:1026 -2.75  
## 9 1:813 -2.73  
## 10 1:725 -2.73  
## 11 1:465 -2.72  
## 12 1:828 -2.65  
## 13 1:884 -2.64  
## 14 1:140 2.64  
## 15 1:605 2.57  
## # ℹ 1,118 more rows

Examine outliers with standardized residuals greater than +/-2 or +/-3.

Outliers based on influence on model using Cook’s Distance:

# using olsrr function  
ols\_plot\_cooksd\_chart(mod\_mice\_imp1)



# or grabbing from model augment output  
cooks\_d <- model\_aug %>%   
 dplyr::select(.rownames, .cooksd) %>%  
 arrange(desc(abs(.cooksd)))  
  
print(cooks\_d, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .cooksd  
## <chr> <dbl>  
## 1 1:351 0.0437  
## 2 1:1034 0.0431  
## 3 1:1022 0.0223  
## 4 1:211 0.0185  
## 5 1:487 0.0184  
## 6 1:422 0.0181  
## 7 1:278 0.0171  
## 8 1:921 0.0140  
## 9 1:383 0.0125  
## 10 1:603 0.0125  
## 11 1:887 0.0120  
## 12 1:352 0.0115  
## 13 1:870 0.0110  
## 14 1:465 0.0105  
## 15 1:844 0.0105  
## # ℹ 1,118 more rows

One standard is that Cook’s D values greater than 3 times the average Cook’s D values are worth investigating.

#### Checking multicollinearity

Using VIFs & tolerance:

ols\_vif\_tol(mod\_mice\_imp1) %>%  
 arrange(desc(abs(VIF)))

## Variables Tolerance  
## 1 framing\_conditionFrameCode1:norm\_condition4:altruistic\_center 0.2749008  
## 2 norm\_condition4:altruistic\_center 0.3336357  
## 3 framing\_conditionFrameCode1:norm\_condition4:biospheric\_center 0.3391581  
## 4 framing\_conditionFrameCode1:altruistic\_center 0.3651837  
## 5 altruistic\_center 0.3874262  
## 6 norm\_condition4:biospheric\_center 0.3914410  
## 7 framing\_conditionFrameCode1:norm\_condition1:altruistic\_center 0.4000894  
## 8 framing\_conditionFrameCode1:norm\_condition2:altruistic\_center 0.4057850  
## 9 framing\_conditionFrameCode2:norm\_condition4:altruistic\_center 0.4151905  
## 10 framing\_conditionFrameCode1:biospheric\_center 0.4325576  
## 11 norm\_condition1:altruistic\_center 0.4326879  
## 12 framing\_conditionFrameCode1:norm\_condition4:hedonic\_center 0.4436836  
## 13 framing\_conditionFrameCode1:norm\_condition3:altruistic\_center 0.4438228  
## 14 framing\_conditionFrameCode1:norm\_condition2:biospheric\_center 0.4454680  
## 15 norm\_condition2:altruistic\_center 0.4483892  
## 16 framing\_conditionFrameCode2:altruistic\_center 0.4644195  
## 17 biospheric\_center 0.4701105  
## 18 framing\_conditionFrameCode2:norm\_condition4:biospheric\_center 0.4714646  
## 19 framing\_conditionFrameCode2:norm\_condition1:altruistic\_center 0.4770487  
## 20 norm\_condition3:altruistic\_center 0.4775915  
## 21 framing\_conditionFrameCode1:norm\_condition3:biospheric\_center 0.4843896  
## 22 norm\_condition2:biospheric\_center 0.4928457  
## 23 framing\_conditionFrameCode1:norm\_condition1:biospheric\_center 0.4959349  
## 24 framing\_conditionFrameCode2:norm\_condition2:altruistic\_center 0.4959734  
## 25 norm\_condition4:hedonic\_center 0.4977435  
## 26 norm\_condition1:biospheric\_center 0.5131661  
## 27 norm\_condition3:biospheric\_center 0.5136750  
## 28 framing\_conditionFrameCode2:norm\_condition3:altruistic\_center 0.5209065  
## 29 framing\_conditionFrameCode1:hedonic\_center 0.5216420  
## 30 framing\_conditionFrameCode2:biospheric\_center 0.5276650  
## 31 framing\_conditionFrameCode2:norm\_condition1:biospheric\_center 0.5384686  
## 32 framing\_conditionFrameCode1:norm\_condition1:hedonic\_center 0.5393344  
## 33 hedonic\_center 0.5482299  
## 34 framing\_conditionFrameCode2:norm\_condition2:biospheric\_center 0.5490552  
## 35 framing\_conditionFrameCode2:norm\_condition3:biospheric\_center 0.5630465  
## 36 framing\_conditionFrameCode2:norm\_condition4:hedonic\_center 0.5648794  
## 37 framing\_conditionFrameCode1:norm\_condition3:hedonic\_center 0.5770447  
## 38 norm\_condition1:hedonic\_center 0.5794838  
## 39 framing\_conditionFrameCode1:norm\_condition2:hedonic\_center 0.5933406  
## 40 framing\_conditionFrameCode2:hedonic\_center 0.6039162  
## 41 norm\_condition3:hedonic\_center 0.6065575  
## 42 norm\_condition2:hedonic\_center 0.6081656  
## 43 framing\_conditionFrameCode2:norm\_condition1:hedonic\_center 0.6146804  
## 44 framing\_conditionFrameCode2:norm\_condition2:hedonic\_center 0.6356194  
## 45 framing\_conditionFrameCode2:norm\_condition4:egoistic\_center 0.6402865  
## 46 framing\_conditionFrameCode2:norm\_condition3:hedonic\_center 0.6453693  
## 47 norm\_condition4:egoistic\_center 0.6454677  
## 48 egoistic\_center 0.6509907  
## 49 framing\_conditionFrameCode1:norm\_condition4:egoistic\_center 0.6587562  
## 50 framing\_conditionFrameCode1:egoistic\_center 0.6905114  
## 51 framing\_conditionFrameCode1:norm\_condition1:egoistic\_center 0.6906863  
## 52 framing\_conditionFrameCode1:norm\_condition3:egoistic\_center 0.6985335  
## 53 norm\_condition1:egoistic\_center 0.7152973  
## 54 norm\_condition3:egoistic\_center 0.7160761  
## 55 framing\_conditionFrameCode2:egoistic\_center 0.7226102  
## 56 framing\_conditionFrameCode1:norm\_condition2:egoistic\_center 0.7410381  
## 57 Gender1 0.7424111  
## 58 framing\_conditionFrameCode2:norm\_condition3:egoistic\_center 0.7428845  
## 59 framing\_conditionFrameCode2:norm\_condition1:egoistic\_center 0.7518467  
## 60 self\_dec\_center 0.7548905  
## 61 norm\_condition2:egoistic\_center 0.7564555  
## 62 framing\_conditionFrameCode2:norm\_condition2:egoistic\_center 0.7692171  
## 63 clothing\_center 0.7755585  
## 64 impress\_manag\_center 0.7928643  
## 65 Age\_center 0.8183444  
## 66 framing\_conditionFrameCode1:norm\_condition3:ingroup\_center 0.8436742  
## 67 framing\_conditionFrameCode1:norm\_condition2:ingroup\_center 0.8526524  
## 68 ingroup\_center 0.8604035  
## 69 framing\_conditionFrameCode1:norm\_condition4 0.8641993  
## 70 framing\_conditionFrameCode1:ingroup\_center 0.8653775  
## 71 norm\_condition2:ingroup\_center 0.8672118  
## 72 norm\_condition3:ingroup\_center 0.8675903  
## 73 framing\_conditionFrameCode1:norm\_condition1:ingroup\_center 0.8759923  
## 74 norm\_condition1:ingroup\_center 0.8815929  
## 75 framing\_conditionFrameCode2:norm\_condition1:ingroup\_center 0.8839960  
## 76 framing\_conditionFrameCode2:norm\_condition2:ingroup\_center 0.8868418  
## 77 framing\_conditionFrameCode2:norm\_condition3:ingroup\_center 0.8878017  
## 78 framing\_conditionFrameCode2:ingroup\_center 0.8935263  
## 79 norm\_condition4:ingroup\_center 0.8942945  
## 80 norm\_condition4 0.8944354  
## 81 framing\_conditionFrameCode1:norm\_condition4:ingroup\_center 0.8947405  
## 82 framing\_conditionFrameCode1 0.8997738  
## 83 framing\_conditionFrameCode1:norm\_condition2 0.9066141  
## 84 framing\_conditionFrameCode2:norm\_condition4:ingroup\_center 0.9096932  
## 85 norm\_condition2 0.9195057  
## 86 framing\_conditionFrameCode1:norm\_condition3 0.9224265  
## 87 framing\_conditionFrameCode1:norm\_condition1 0.9225780  
## 88 framing\_conditionFrameCode2 0.9264761  
## 89 framing\_conditionFrameCode2:norm\_condition4 0.9282627  
## 90 norm\_condition3 0.9293532  
## 91 framing\_conditionFrameCode2:norm\_condition2 0.9320443  
## 92 framing\_conditionFrameCode2:norm\_condition1 0.9328687  
## 93 norm\_condition1 0.9329677  
## 94 framing\_conditionFrameCode2:norm\_condition3 0.9372345  
## VIF  
## 1 3.637675  
## 2 2.997282  
## 3 2.948478  
## 4 2.738348  
## 5 2.581137  
## 6 2.554664  
## 7 2.499441  
## 8 2.464359  
## 9 2.408533  
## 10 2.311831  
## 11 2.311134  
## 12 2.253858  
## 13 2.253151  
## 14 2.244830  
## 15 2.230205  
## 16 2.153226  
## 17 2.127160  
## 18 2.121050  
## 19 2.096222  
## 20 2.093840  
## 21 2.064454  
## 22 2.029032  
## 23 2.016394  
## 24 2.016237  
## 25 2.009067  
## 26 1.948687  
## 27 1.946756  
## 28 1.919730  
## 29 1.917023  
## 30 1.895142  
## 31 1.857119  
## 32 1.854137  
## 33 1.824052  
## 34 1.821310  
## 35 1.776052  
## 36 1.770289  
## 37 1.732968  
## 38 1.725674  
## 39 1.685373  
## 40 1.655859  
## 41 1.648648  
## 42 1.644289  
## 43 1.626862  
## 44 1.573269  
## 45 1.561801  
## 46 1.549501  
## 47 1.549264  
## 48 1.536120  
## 49 1.518012  
## 50 1.448202  
## 51 1.447835  
## 52 1.431571  
## 53 1.398020  
## 54 1.396500  
## 55 1.383872  
## 56 1.349458  
## 57 1.346963  
## 58 1.346104  
## 59 1.330058  
## 60 1.324695  
## 61 1.321955  
## 62 1.300023  
## 63 1.289393  
## 64 1.261250  
## 65 1.221979  
## 66 1.185292  
## 67 1.172811  
## 68 1.162245  
## 69 1.157141  
## 70 1.155565  
## 71 1.153121  
## 72 1.152618  
## 73 1.141562  
## 74 1.134310  
## 75 1.131227  
## 76 1.127597  
## 77 1.126378  
## 78 1.119161  
## 79 1.118200  
## 80 1.118024  
## 81 1.117643  
## 82 1.111390  
## 83 1.103005  
## 84 1.099272  
## 85 1.087541  
## 86 1.084097  
## 87 1.083919  
## 88 1.079359  
## 89 1.077281  
## 90 1.076017  
## 91 1.072910  
## 92 1.071962  
## 93 1.071848  
## 94 1.066969

Either a *low* tolerance (below 0.20 is one rule of thumb) or a *high* VIF (above 5 or 10) is an indication of a problem with multicollinearity.

## Imputed Data 2

### Regression summary

Succinct summary

summary\_imp2$coefficients %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Estimate | Std. Error | t value | Pr(>|t|) |
| --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.44 | 0.000 |
| framing\_conditionFrameCode1 | 0.04 | 0.08 | 0.47 | 0.640 |
| framing\_conditionFrameCode2 | 0.13 | 0.07 | 1.86 | 0.063 |
| norm\_condition1 | -0.02 | 0.05 | -0.31 | 0.756 |
| norm\_condition2 | 0.03 | 0.03 | 0.92 | 0.358 |
| norm\_condition3 | -0.04 | 0.02 | -2.00 | 0.046 |
| norm\_condition4 | -0.01 | 0.02 | -0.87 | 0.385 |
| biospheric\_center | 0.36 | 0.05 | 7.82 | 0.000 |
| altruistic\_center | 0.07 | 0.06 | 1.14 | 0.253 |
| egoistic\_center | -0.30 | 0.04 | -7.00 | 0.000 |
| hedonic\_center | -0.09 | 0.05 | -1.62 | 0.105 |
| ingroup\_center | 0.03 | 0.03 | 0.93 | 0.351 |
| self\_dec\_center | -0.11 | 0.04 | -2.47 | 0.014 |
| impress\_manag\_center | -0.02 | 0.04 | -0.46 | 0.642 |
| clothing\_center | 0.00 | 0.05 | 0.04 | 0.969 |
| Gender1 | 0.16 | 0.08 | 2.13 | 0.033 |
| Age\_center | -0.04 | 0.02 | -1.89 | 0.059 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.19 | 0.13 | 1.54 | 0.125 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.11 | 0.11 | -0.96 | 0.339 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.08 | -0.04 | 0.970 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.04 | 0.06 | -0.59 | 0.554 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.03 | 0.05 | 0.49 | 0.625 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.05 | 0.51 | 0.608 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.03 | 0.04 | 0.68 | 0.498 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.02 | 0.03 | -0.44 | 0.661 |
| framing\_conditionFrameCode1:biospheric\_center | -0.04 | 0.12 | -0.34 | 0.734 |
| framing\_conditionFrameCode2:biospheric\_center | 0.06 | 0.09 | 0.61 | 0.544 |
| norm\_condition1:biospheric\_center | -0.06 | 0.07 | -0.91 | 0.363 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.83 | 0.067 |
| norm\_condition3:biospheric\_center | -0.05 | 0.03 | -1.79 | 0.073 |
| norm\_condition4:biospheric\_center | -0.04 | 0.03 | -1.74 | 0.082 |
| framing\_conditionFrameCode1:altruistic\_center | 0.01 | 0.16 | 0.03 | 0.974 |
| framing\_conditionFrameCode2:altruistic\_center | -0.12 | 0.13 | -0.98 | 0.327 |
| norm\_condition1:altruistic\_center | -0.12 | 0.10 | -1.17 | 0.241 |
| norm\_condition2:altruistic\_center | -0.01 | 0.05 | -0.20 | 0.838 |
| norm\_condition3:altruistic\_center | 0.04 | 0.04 | 0.84 | 0.399 |
| norm\_condition4:altruistic\_center | 0.07 | 0.03 | 2.38 | 0.017 |
| framing\_conditionFrameCode1:egoistic\_center | -0.04 | 0.10 | -0.38 | 0.701 |
| framing\_conditionFrameCode2:egoistic\_center | 0.05 | 0.09 | 0.63 | 0.532 |
| norm\_condition1:egoistic\_center | 0.05 | 0.07 | 0.68 | 0.496 |
| norm\_condition2:egoistic\_center | -0.02 | 0.04 | -0.43 | 0.664 |
| norm\_condition3:egoistic\_center | 0.02 | 0.03 | 0.68 | 0.495 |
| norm\_condition4:egoistic\_center | 0.02 | 0.02 | 0.73 | 0.467 |
| framing\_conditionFrameCode1:hedonic\_center | 0.02 | 0.13 | 0.15 | 0.878 |
| framing\_conditionFrameCode2:hedonic\_center | 0.14 | 0.11 | 1.26 | 0.208 |
| norm\_condition1:hedonic\_center | 0.02 | 0.09 | 0.25 | 0.806 |
| norm\_condition2:hedonic\_center | 0.06 | 0.05 | 1.19 | 0.233 |
| norm\_condition3:hedonic\_center | -0.05 | 0.04 | -1.32 | 0.188 |
| norm\_condition4:hedonic\_center | -0.05 | 0.02 | -1.90 | 0.058 |
| framing\_conditionFrameCode1:ingroup\_center | 0.03 | 0.08 | 0.33 | 0.741 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.88 | 0.378 |
| norm\_condition1:ingroup\_center | 0.00 | 0.05 | 0.06 | 0.955 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.38 | 0.706 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.17 | 0.866 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.90 | 0.370 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.06 | 0.18 | -0.35 | 0.726 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.02 | 0.14 | 0.16 | 0.873 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.13 | 0.11 | -1.20 | 0.230 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.12 | 0.08 | 1.36 | 0.174 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.15 | 0.08 | 1.99 | 0.047 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.07 | 0.06 | 1.19 | 0.235 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.06 | 0.07 | 0.92 | 0.360 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.12 | 0.05 | 2.43 | 0.015 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.03 | 0.24 | -0.13 | 0.898 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.20 | 0.21 | 0.98 | 0.328 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.26 | 0.14 | 1.85 | 0.065 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | -0.01 | 0.11 | -0.08 | 0.936 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.16 | 0.11 | -1.47 | 0.142 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.07 | 0.08 | -0.87 | 0.387 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | 0.00 | 0.08 | -0.05 | 0.963 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.09 | 0.06 | -1.52 | 0.129 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.03 | 0.17 | 0.17 | 0.862 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.13 | 0.14 | 0.95 | 0.342 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.01 | 0.09 | -0.17 | 0.869 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.16 | 0.08 | 2.06 | 0.040 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.33 | 0.185 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.03 | 0.06 | 0.46 | 0.649 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.06 | 0.05 | -1.12 | 0.264 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.93 | 0.351 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | -0.01 | 0.21 | -0.05 | 0.960 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.23 | 0.19 | -1.21 | 0.225 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.14 | 0.12 | -1.24 | 0.215 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | 0.01 | 0.10 | 0.08 | 0.933 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.13 | 0.09 | -1.46 | 0.146 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | 0.00 | 0.07 | 0.00 | 0.998 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | -0.01 | 0.06 | -0.15 | 0.878 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.04 | 0.05 | 0.71 | 0.475 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.17 | 0.13 | 1.31 | 0.190 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.04 | 0.11 | 0.38 | 0.701 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.12 | 0.08 | 1.53 | 0.127 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.49 | 0.623 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.03 | 0.05 | 0.61 | 0.540 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.63 | 0.529 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.21 | 0.028 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.11 | 0.265 |

APA style table for regression summary

apa\_summ\_imp2 <- apa\_print(summary\_imp2)  
  
apa\_summ\_imp2$table %>%  
apa\_table(caption = "Table 3 Regression Results Using Imputed Data 2",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-55)

*Table 3 Regression Results Using Imputed Data 2*

| Predictor |  | 95% CI |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Intercept | 4.39 | [4.32, 4.45] | 128.44 | 1038 | < .001 |
| Framing conditionFrameCode1 | 0.04 | [-0.12, 0.20] | 0.47 | 1038 | .640 |
| Framing conditionFrameCode2 | 0.13 | [-0.01, 0.27] | 1.86 | 1038 | .063 |
| Norm condition1 | -0.02 | [-0.12, 0.08] | -0.31 | 1038 | .756 |
| Norm condition2 | 0.03 | [-0.03, 0.09] | 0.92 | 1038 | .358 |
| Norm condition3 | -0.04 | [-0.08, 0.00] | -2.00 | 1038 | .046 |
| Norm condition4 | -0.01 | [-0.05, 0.02] | -0.87 | 1038 | .385 |
| Biospheric center | 0.36 | [0.27, 0.46] | 7.82 | 1038 | < .001 |
| Altruistic center | 0.07 | [-0.05, 0.20] | 1.14 | 1038 | .253 |
| Egoistic center | -0.30 | [-0.38, -0.22] | -7.00 | 1038 | < .001 |
| Hedonic center | -0.09 | [-0.19, 0.02] | -1.62 | 1038 | .105 |
| Ingroup center | 0.03 | [-0.03, 0.10] | 0.93 | 1038 | .351 |
| Self dec center | -0.11 | [-0.19, -0.02] | -2.47 | 1038 | .014 |
| Impress manag center | -0.02 | [-0.10, 0.06] | -0.46 | 1038 | .642 |
| Clothing center | 0.00 | [-0.09, 0.09] | 0.04 | 1038 | .969 |
| Gender1 | 0.16 | [0.01, 0.31] | 2.13 | 1038 | .033 |
| Age center | -0.04 | [-0.07, 0.00] | -1.89 | 1038 | .059 |
| Framing conditionFrameCode1 Norm condition1 | 0.19 | [-0.05, 0.44] | 1.54 | 1038 | .125 |
| Framing conditionFrameCode2 Norm condition1 | -0.11 | [-0.32, 0.11] | -0.96 | 1038 | .339 |
| Framing conditionFrameCode1 Norm condition2 | 0.00 | [-0.15, 0.15] | -0.04 | 1038 | .970 |
| Framing conditionFrameCode2 Norm condition2 | -0.04 | [-0.16, 0.09] | -0.59 | 1038 | .554 |
| Framing conditionFrameCode1 Norm condition3 | 0.03 | [-0.08, 0.13] | 0.49 | 1038 | .625 |
| Framing conditionFrameCode2 Norm condition3 | 0.02 | [-0.07, 0.11] | 0.51 | 1038 | .608 |
| Framing conditionFrameCode1 Norm condition4 | 0.03 | [-0.05, 0.11] | 0.68 | 1038 | .498 |
| Framing conditionFrameCode2 Norm condition4 | -0.02 | [-0.08, 0.05] | -0.44 | 1038 | .661 |
| Framing conditionFrameCode1 Biospheric center | -0.04 | [-0.28, 0.20] | -0.34 | 1038 | .734 |
| Framing conditionFrameCode2 Biospheric center | 0.06 | [-0.12, 0.24] | 0.61 | 1038 | .544 |
| Norm condition1 Biospheric center | -0.06 | [-0.20, 0.07] | -0.91 | 1038 | .363 |
| Norm condition2 Biospheric center | 0.08 | [-0.01, 0.16] | 1.83 | 1038 | .067 |
| Norm condition3 Biospheric center | -0.05 | [-0.11, 0.00] | -1.79 | 1038 | .073 |
| Norm condition4 Biospheric center | -0.04 | [-0.09, 0.01] | -1.74 | 1038 | .082 |
| Framing conditionFrameCode1 Altruistic center | 0.01 | [-0.30, 0.31] | 0.03 | 1038 | .974 |
| Framing conditionFrameCode2 Altruistic center | -0.12 | [-0.37, 0.12] | -0.98 | 1038 | .327 |
| Norm condition1 Altruistic center | -0.12 | [-0.31, 0.08] | -1.17 | 1038 | .241 |
| Norm condition2 Altruistic center | -0.01 | [-0.12, 0.10] | -0.20 | 1038 | .838 |
| Norm condition3 Altruistic center | 0.04 | [-0.05, 0.12] | 0.84 | 1038 | .399 |
| Norm condition4 Altruistic center | 0.07 | [0.01, 0.13] | 2.38 | 1038 | .017 |
| Framing conditionFrameCode1 Egoistic center | -0.04 | [-0.24, 0.16] | -0.38 | 1038 | .701 |
| Framing conditionFrameCode2 Egoistic center | 0.05 | [-0.11, 0.22] | 0.63 | 1038 | .532 |
| Norm condition1 Egoistic center | 0.05 | [-0.09, 0.18] | 0.68 | 1038 | .496 |
| Norm condition2 Egoistic center | -0.02 | [-0.09, 0.06] | -0.43 | 1038 | .664 |
| Norm condition3 Egoistic center | 0.02 | [-0.03, 0.07] | 0.68 | 1038 | .495 |
| Norm condition4 Egoistic center | 0.02 | [-0.03, 0.06] | 0.73 | 1038 | .467 |
| Framing conditionFrameCode1 Hedonic center | 0.02 | [-0.24, 0.28] | 0.15 | 1038 | .878 |
| Framing conditionFrameCode2 Hedonic center | 0.14 | [-0.08, 0.36] | 1.26 | 1038 | .208 |
| Norm condition1 Hedonic center | 0.02 | [-0.15, 0.19] | 0.25 | 1038 | .806 |
| Norm condition2 Hedonic center | 0.06 | [-0.04, 0.15] | 1.19 | 1038 | .233 |
| Norm condition3 Hedonic center | -0.05 | [-0.12, 0.02] | -1.32 | 1038 | .188 |
| Norm condition4 Hedonic center | -0.05 | [-0.10, 0.00] | -1.90 | 1038 | .058 |
| Framing conditionFrameCode1 Ingroup center | 0.03 | [-0.13, 0.19] | 0.33 | 1038 | .741 |
| Framing conditionFrameCode2 Ingroup center | -0.06 | [-0.20, 0.08] | -0.88 | 1038 | .378 |
| Norm condition1 Ingroup center | 0.00 | [-0.10, 0.11] | 0.06 | 1038 | .955 |
| Norm condition2 Ingroup center | -0.01 | [-0.07, 0.05] | -0.38 | 1038 | .706 |
| Norm condition3 Ingroup center | 0.00 | [-0.04, 0.05] | 0.17 | 1038 | .866 |
| Norm condition4 Ingroup center | -0.01 | [-0.05, 0.02] | -0.90 | 1038 | .370 |
| Framing conditionFrameCode1 Norm condition1 Biospheric center | -0.06 | [-0.41, 0.29] | -0.35 | 1038 | .726 |
| Framing conditionFrameCode2 Norm condition1 Biospheric center | 0.02 | [-0.26, 0.30] | 0.16 | 1038 | .873 |
| Framing conditionFrameCode1 Norm condition2 Biospheric center | -0.13 | [-0.33, 0.08] | -1.20 | 1038 | .230 |
| Framing conditionFrameCode2 Norm condition2 Biospheric center | 0.12 | [-0.05, 0.28] | 1.36 | 1038 | .174 |
| Framing conditionFrameCode1 Norm condition3 Biospheric center | 0.15 | [0.00, 0.30] | 1.99 | 1038 | .047 |
| Framing conditionFrameCode2 Norm condition3 Biospheric center | 0.07 | [-0.04, 0.18] | 1.19 | 1038 | .235 |
| Framing conditionFrameCode1 Norm condition4 Biospheric center | 0.06 | [-0.07, 0.19] | 0.92 | 1038 | .360 |
| Framing conditionFrameCode2 Norm condition4 Biospheric center | 0.12 | [0.02, 0.21] | 2.43 | 1038 | .015 |
| Framing conditionFrameCode1 Norm condition1 Altruistic center | -0.03 | [-0.51, 0.45] | -0.13 | 1038 | .898 |
| Framing conditionFrameCode2 Norm condition1 Altruistic center | 0.20 | [-0.20, 0.61] | 0.98 | 1038 | .328 |
| Framing conditionFrameCode1 Norm condition2 Altruistic center | 0.26 | [-0.02, 0.53] | 1.85 | 1038 | .065 |
| Framing conditionFrameCode2 Norm condition2 Altruistic center | -0.01 | [-0.23, 0.21] | -0.08 | 1038 | .936 |
| Framing conditionFrameCode1 Norm condition3 Altruistic center | -0.16 | [-0.36, 0.05] | -1.47 | 1038 | .142 |
| Framing conditionFrameCode2 Norm condition3 Altruistic center | -0.07 | [-0.24, 0.09] | -0.87 | 1038 | .387 |
| Framing conditionFrameCode1 Norm condition4 Altruistic center | 0.00 | [-0.15, 0.15] | -0.05 | 1038 | .963 |
| Framing conditionFrameCode2 Norm condition4 Altruistic center | -0.09 | [-0.20, 0.03] | -1.52 | 1038 | .129 |
| Framing conditionFrameCode1 Norm condition1 Egoistic center | 0.03 | [-0.31, 0.37] | 0.17 | 1038 | .862 |
| Framing conditionFrameCode2 Norm condition1 Egoistic center | 0.13 | [-0.14, 0.40] | 0.95 | 1038 | .342 |
| Framing conditionFrameCode1 Norm condition2 Egoistic center | -0.01 | [-0.19, 0.16] | -0.17 | 1038 | .869 |
| Framing conditionFrameCode2 Norm condition2 Egoistic center | 0.16 | [0.01, 0.31] | 2.06 | 1038 | .040 |
| Framing conditionFrameCode1 Norm condition3 Egoistic center | 0.08 | [-0.04, 0.21] | 1.33 | 1038 | .185 |
| Framing conditionFrameCode2 Norm condition3 Egoistic center | 0.03 | [-0.08, 0.13] | 0.46 | 1038 | .649 |
| Framing conditionFrameCode1 Norm condition4 Egoistic center | -0.06 | [-0.16, 0.04] | -1.12 | 1038 | .264 |
| Framing conditionFrameCode2 Norm condition4 Egoistic center | -0.04 | [-0.12, 0.04] | -0.93 | 1038 | .351 |
| Framing conditionFrameCode1 Norm condition1 Hedonic center | -0.01 | [-0.43, 0.41] | -0.05 | 1038 | .960 |
| Framing conditionFrameCode2 Norm condition1 Hedonic center | -0.23 | [-0.59, 0.14] | -1.21 | 1038 | .225 |
| Framing conditionFrameCode1 Norm condition2 Hedonic center | -0.14 | [-0.37, 0.08] | -1.24 | 1038 | .215 |
| Framing conditionFrameCode2 Norm condition2 Hedonic center | 0.01 | [-0.19, 0.21] | 0.08 | 1038 | .933 |
| Framing conditionFrameCode1 Norm condition3 Hedonic center | -0.13 | [-0.30, 0.04] | -1.46 | 1038 | .146 |
| Framing conditionFrameCode2 Norm condition3 Hedonic center | 0.00 | [-0.14, 0.14] | 0.00 | 1038 | .998 |
| Framing conditionFrameCode1 Norm condition4 Hedonic center | -0.01 | [-0.13, 0.11] | -0.15 | 1038 | .878 |
| Framing conditionFrameCode2 Norm condition4 Hedonic center | 0.04 | [-0.06, 0.14] | 0.71 | 1038 | .475 |
| Framing conditionFrameCode1 Norm condition1 Ingroup center | 0.17 | [-0.08, 0.42] | 1.31 | 1038 | .190 |
| Framing conditionFrameCode2 Norm condition1 Ingroup center | 0.04 | [-0.18, 0.26] | 0.38 | 1038 | .701 |
| Framing conditionFrameCode1 Norm condition2 Ingroup center | 0.12 | [-0.03, 0.27] | 1.53 | 1038 | .127 |
| Framing conditionFrameCode2 Norm condition2 Ingroup center | -0.03 | [-0.16, 0.10] | -0.49 | 1038 | .623 |
| Framing conditionFrameCode1 Norm condition3 Ingroup center | 0.03 | [-0.07, 0.14] | 0.61 | 1038 | .540 |
| Framing conditionFrameCode2 Norm condition3 Ingroup center | -0.03 | [-0.12, 0.06] | -0.63 | 1038 | .529 |
| Framing conditionFrameCode1 Norm condition4 Ingroup center | -0.09 | [-0.17, -0.01] | -2.21 | 1038 | .028 |
| Framing conditionFrameCode2 Norm condition4 Ingroup center | 0.04 | [-0.03, 0.11] | 1.11 | 1038 | .265 |

*Note.* DV = Consumer Intentions

Standardized regression coefficients

APA summary of standardized coefficients

### ANOVA summary

Anova(mod\_mice\_imp2, type = 3) %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18850.52 | 1 | 16495.62 | 0.000 |
| framing\_condition | 4.19 | 2 | 1.84 | 0.160 |
| norm\_condition | 6.51 | 4 | 1.42 | 0.224 |
| biospheric\_center | 69.94 | 1 | 61.20 | 0.000 |
| altruistic\_center | 1.50 | 1 | 1.31 | 0.253 |
| egoistic\_center | 56.07 | 1 | 49.07 | 0.000 |
| hedonic\_center | 3.00 | 1 | 2.63 | 0.105 |
| ingroup\_center | 1.00 | 1 | 0.87 | 0.351 |
| self\_dec\_center | 6.96 | 1 | 6.09 | 0.014 |
| impress\_manag\_center | 0.25 | 1 | 0.22 | 0.642 |
| clothing\_center | 0.00 | 1 | 0.00 | 0.969 |
| Gender | 5.20 | 1 | 4.55 | 0.033 |
| Age\_center | 4.09 | 1 | 3.58 | 0.059 |
| framing\_condition:norm\_condition | 5.61 | 8 | 0.61 | 0.767 |
| framing\_condition:biospheric\_center | 0.55 | 2 | 0.24 | 0.785 |
| norm\_condition:biospheric\_center | 11.76 | 4 | 2.57 | 0.036 |
| framing\_condition:altruistic\_center | 1.10 | 2 | 0.48 | 0.619 |
| norm\_condition:altruistic\_center | 9.47 | 4 | 2.07 | 0.082 |
| framing\_condition:egoistic\_center | 0.61 | 2 | 0.27 | 0.765 |
| norm\_condition:egoistic\_center | 2.00 | 4 | 0.44 | 0.781 |
| framing\_condition:hedonic\_center | 1.85 | 2 | 0.81 | 0.445 |
| norm\_condition:hedonic\_center | 8.14 | 4 | 1.78 | 0.130 |
| framing\_condition:ingroup\_center | 1.00 | 2 | 0.44 | 0.647 |
| norm\_condition:ingroup\_center | 1.12 | 4 | 0.25 | 0.913 |
| framing\_condition:norm\_condition:biospheric\_center | 17.69 | 8 | 1.93 | 0.052 |
| framing\_condition:norm\_condition:altruistic\_center | 11.78 | 8 | 1.29 | 0.245 |
| framing\_condition:norm\_condition:egoistic\_center | 11.20 | 8 | 1.22 | 0.281 |
| framing\_condition:norm\_condition:hedonic\_center | 6.60 | 8 | 0.72 | 0.672 |
| framing\_condition:norm\_condition:ingroup\_center | 12.32 | 8 | 1.35 | 0.216 |
| Residuals | 1186.18 | 1038 | NA | NA |

### Effect Size

etaSquared(mod\_mice\_imp2, type = 3, anova = TRUE) %>%   
 knitr::kable(digits = 3)

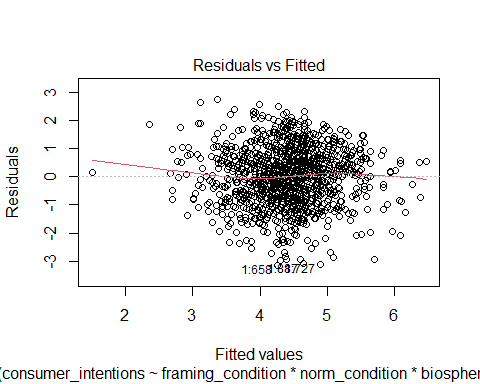
|  | eta.sq | eta.sq.part | SS | df | MS | F | p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 0.003 | 0.004 | 4.195 | 2 | 2.097 | 1.835 | 0.160 |
| norm\_condition | 0.004 | 0.005 | 6.507 | 4 | 1.627 | 1.423 | 0.224 |
| biospheric\_center | 0.044 | 0.056 | 69.943 | 1 | 69.943 | 61.205 | 0.000 |
| altruistic\_center | 0.001 | 0.001 | 1.496 | 1 | 1.496 | 1.309 | 0.253 |
| egoistic\_center | 0.035 | 0.045 | 56.073 | 1 | 56.073 | 49.068 | 0.000 |
| hedonic\_center | 0.002 | 0.003 | 3.000 | 1 | 3.000 | 2.625 | 0.105 |
| ingroup\_center | 0.001 | 0.001 | 0.996 | 1 | 0.996 | 0.871 | 0.351 |
| self\_dec\_center | 0.004 | 0.006 | 6.960 | 1 | 6.960 | 6.091 | 0.014 |
| impress\_manag\_center | 0.000 | 0.000 | 0.247 | 1 | 0.247 | 0.216 | 0.642 |
| clothing\_center | 0.000 | 0.000 | 0.002 | 1 | 0.002 | 0.002 | 0.969 |
| Gender | 0.003 | 0.004 | 5.196 | 1 | 5.196 | 4.547 | 0.033 |
| Age\_center | 0.003 | 0.003 | 4.092 | 1 | 4.092 | 3.581 | 0.059 |
| framing\_condition:norm\_condition | 0.004 | 0.005 | 5.611 | 8 | 0.701 | 0.614 | 0.767 |
| framing\_condition:biospheric\_center | 0.000 | 0.000 | 0.552 | 2 | 0.276 | 0.242 | 0.785 |
| norm\_condition:biospheric\_center | 0.007 | 0.010 | 11.760 | 4 | 2.940 | 2.573 | 0.036 |
| framing\_condition:altruistic\_center | 0.001 | 0.001 | 1.099 | 2 | 0.549 | 0.481 | 0.619 |
| norm\_condition:altruistic\_center | 0.006 | 0.008 | 9.471 | 4 | 2.368 | 2.072 | 0.082 |
| framing\_condition:egoistic\_center | 0.000 | 0.001 | 0.614 | 2 | 0.307 | 0.268 | 0.765 |
| norm\_condition:egoistic\_center | 0.001 | 0.002 | 2.005 | 4 | 0.501 | 0.439 | 0.781 |
| framing\_condition:hedonic\_center | 0.001 | 0.002 | 1.851 | 2 | 0.925 | 0.810 | 0.445 |
| norm\_condition:hedonic\_center | 0.005 | 0.007 | 8.140 | 4 | 2.035 | 1.781 | 0.130 |
| framing\_condition:ingroup\_center | 0.001 | 0.001 | 0.997 | 2 | 0.498 | 0.436 | 0.647 |
| norm\_condition:ingroup\_center | 0.001 | 0.001 | 1.120 | 4 | 0.280 | 0.245 | 0.913 |
| framing\_condition:norm\_condition:biospheric\_center | 0.011 | 0.015 | 17.687 | 8 | 2.211 | 1.935 | 0.052 |
| framing\_condition:norm\_condition:altruistic\_center | 0.007 | 0.010 | 11.784 | 8 | 1.473 | 1.289 | 0.245 |
| framing\_condition:norm\_condition:egoistic\_center | 0.007 | 0.009 | 11.196 | 8 | 1.399 | 1.225 | 0.281 |
| framing\_condition:norm\_condition:hedonic\_center | 0.004 | 0.006 | 6.601 | 8 | 0.825 | 0.722 | 0.672 |
| framing\_condition:norm\_condition:ingroup\_center | 0.008 | 0.010 | 12.317 | 8 | 1.540 | 1.347 | 0.216 |
| Residuals | 0.742 | NA | 1186.184 | 1038 | 1.143 | NA | NA |

### Regression Diagnostics

#### Checking non-linearity

First, assess non-linearity using a residuals plots:

plot(mod\_mice\_imp2, 1)

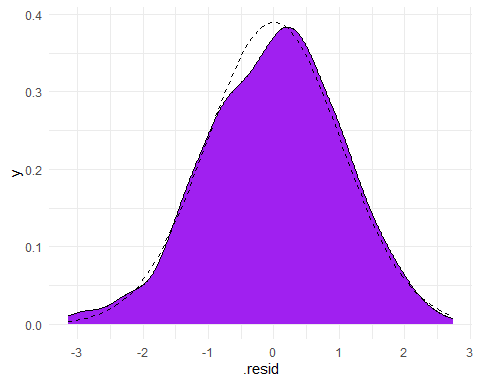


There does not appear to be a systematic pattern suggesting an uncaptured, non-linear trend.

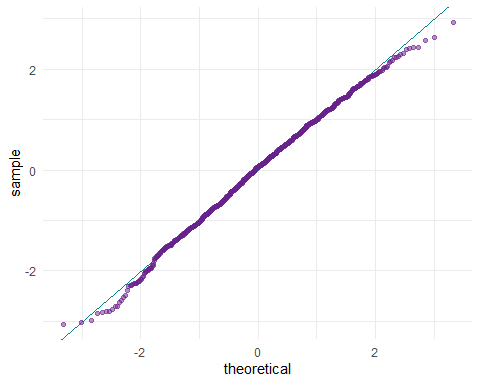
#### Checking non-normally distributed errors

Second, assess non-normally distributed errors by plotting the residuals & using a QQ-plot:

# storing residuals  
store\_residuals <- augment(mod\_mice\_imp2)  
  
# plotting histogram of residuals  
ggplot(data = store\_residuals, aes(x = .resid)) +   
 geom\_density(fill = "purple") +   
 stat\_function(linetype = 2,   
 fun = dnorm,   
 args = list(mean = mean(store\_residuals$.resid),   
 sd = sd(store\_residuals$.resid))) +  
 theme\_minimal()



# QQ-plot  
ggplot(mod\_mice\_imp2) +  
 geom\_abline(color = "turquoise4") +   
 stat\_qq(aes(sample = .stdresid), color = "darkorchid4", alpha = .50) +  
 theme\_minimal()

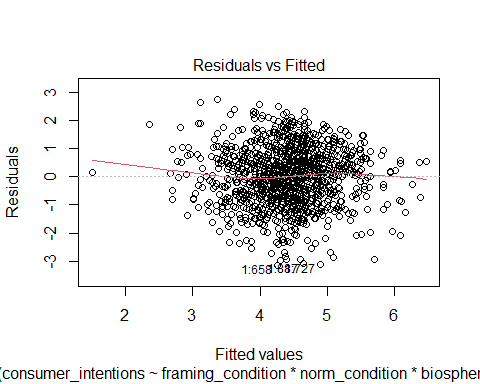


The distribution of residuals & QQ-plot suggest approximately normally distributed residuals.

#### Checking heteroscedasticity

Third, check for heteroscedasticity by looking at spread of residuals on residuals plot:

plot(mod\_mice\_imp2, 1)

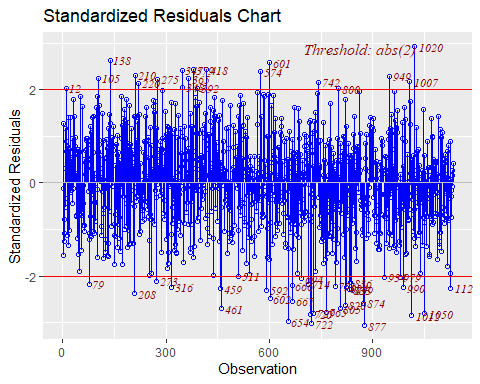


The spread of the residuals appears to be approximately the same across the range of fitted values.

#### Checking multivariate outliers

Outliers based on distance from model using standardized residuals:

# using olsrr function  
ols\_plot\_resid\_stand(mod\_mice\_imp2)



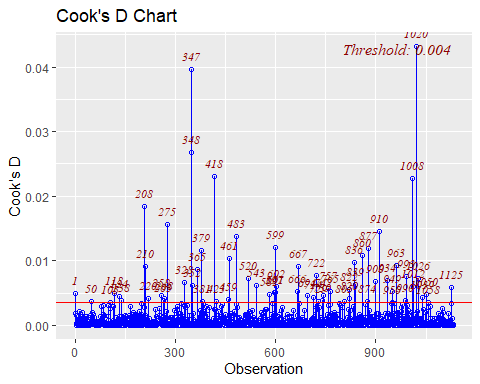
# or grabbing from model augment output  
model\_aug <- augment(mod\_mice\_imp2)  
  
model\_aug$id <- mod\_mice\_imp2$.rownames  
  
std\_resids <- model\_aug %>%   
 dplyr::select(.rownames, .std.resid) %>%  
 arrange(desc(abs(.std.resid)))  
  
print(std\_resids, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .std.resid  
## <chr> <dbl>  
## 1 1:887 -3.06  
## 2 1:727 -3.03  
## 3 1:658 -2.97  
## 4 1:1034 2.93  
## 5 1:1026 -2.85  
## 6 1:725 -2.82  
## 7 1:1064 -2.81  
## 8 1:734 -2.80  
## 9 1:771 -2.77  
## 10 1:813 -2.70  
## 11 1:465 -2.70  
## 12 1:140 2.64  
## 13 1:828 -2.62  
## 14 1:884 -2.58  
## 15 1:605 2.58  
## # ℹ 1,118 more rows

Examine outliers with standardized residuals greater than +/-2 or +/-3.

Outliers based on influence on model using Cook’s Distance:

# using olsrr function  
ols\_plot\_cooksd\_chart(mod\_mice\_imp2)



# or grabbing from model augment output  
cooks\_d <- model\_aug %>%   
 dplyr::select(.rownames, .cooksd) %>%  
 arrange(desc(abs(.cooksd)))  
  
print(cooks\_d, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .cooksd  
## <chr> <dbl>  
## 1 1:1034 0.0432   
## 2 1:351 0.0397   
## 3 1:352 0.0268   
## 4 1:422 0.0230   
## 5 1:1022 0.0228   
## 6 1:211 0.0185   
## 7 1:278 0.0156   
## 8 1:921 0.0146   
## 9 1:487 0.0137   
## 10 1:603 0.0120   
## 11 1:887 0.0119   
## 12 1:383 0.0116   
## 13 1:870 0.0108   
## 14 1:465 0.0104   
## 15 1:844 0.00974  
## # ℹ 1,118 more rows

One standard is that Cook’s D values greater than 3 times the average Cook’s D values are worth investigating.

#### Checking multicollinearity

Using VIFs & tolerance:

ols\_vif\_tol(mod\_mice\_imp2) %>%  
 arrange(desc(abs(VIF)))

## Variables Tolerance  
## 1 framing\_conditionFrameCode1:norm\_condition4:altruistic\_center 0.2699632  
## 2 norm\_condition4:altruistic\_center 0.3305902  
## 3 framing\_conditionFrameCode1:norm\_condition4:biospheric\_center 0.3400162  
## 4 framing\_conditionFrameCode1:altruistic\_center 0.3659285  
## 5 altruistic\_center 0.3855653  
## 6 norm\_condition4:biospheric\_center 0.3921961  
## 7 framing\_conditionFrameCode1:norm\_condition2:altruistic\_center 0.4110324  
## 8 framing\_conditionFrameCode1:norm\_condition1:altruistic\_center 0.4114421  
## 9 framing\_conditionFrameCode2:norm\_condition4:altruistic\_center 0.4131255  
## 10 framing\_conditionFrameCode1:biospheric\_center 0.4365453  
## 11 framing\_conditionFrameCode1:norm\_condition4:hedonic\_center 0.4370793  
## 12 norm\_condition1:altruistic\_center 0.4398868  
## 13 framing\_conditionFrameCode1:norm\_condition3:altruistic\_center 0.4474738  
## 14 framing\_conditionFrameCode1:norm\_condition2:biospheric\_center 0.4487561  
## 15 norm\_condition2:altruistic\_center 0.4513879  
## 16 framing\_conditionFrameCode2:altruistic\_center 0.4650440  
## 17 framing\_conditionFrameCode2:norm\_condition4:biospheric\_center 0.4713084  
## 18 biospheric\_center 0.4722594  
## 19 norm\_condition3:altruistic\_center 0.4809993  
## 20 framing\_conditionFrameCode2:norm\_condition1:altruistic\_center 0.4814349  
## 21 framing\_conditionFrameCode1:norm\_condition3:biospheric\_center 0.4891514  
## 22 norm\_condition4:hedonic\_center 0.4921909  
## 23 norm\_condition2:biospheric\_center 0.4945037  
## 24 framing\_conditionFrameCode2:norm\_condition2:altruistic\_center 0.4977221  
## 25 framing\_conditionFrameCode1:norm\_condition1:biospheric\_center 0.5048117  
## 26 norm\_condition3:biospheric\_center 0.5174014  
## 27 norm\_condition1:biospheric\_center 0.5185853  
## 28 framing\_conditionFrameCode2:norm\_condition3:altruistic\_center 0.5227512  
## 29 framing\_conditionFrameCode1:hedonic\_center 0.5255496  
## 30 framing\_conditionFrameCode2:biospheric\_center 0.5298896  
## 31 framing\_conditionFrameCode2:norm\_condition1:biospheric\_center 0.5411964  
## 32 framing\_conditionFrameCode2:norm\_condition2:biospheric\_center 0.5504039  
## 33 hedonic\_center 0.5506700  
## 34 framing\_conditionFrameCode1:norm\_condition1:hedonic\_center 0.5575663  
## 35 framing\_conditionFrameCode2:norm\_condition4:hedonic\_center 0.5611648  
## 36 framing\_conditionFrameCode2:norm\_condition3:biospheric\_center 0.5661592  
## 37 framing\_conditionFrameCode1:norm\_condition3:hedonic\_center 0.5815950  
## 38 norm\_condition1:hedonic\_center 0.5867317  
## 39 framing\_conditionFrameCode1:norm\_condition2:hedonic\_center 0.5986059  
## 40 framing\_conditionFrameCode2:hedonic\_center 0.6057832  
## 41 norm\_condition3:hedonic\_center 0.6093309  
## 42 norm\_condition2:hedonic\_center 0.6121847  
## 43 framing\_conditionFrameCode2:norm\_condition1:hedonic\_center 0.6163000  
## 44 framing\_conditionFrameCode2:norm\_condition2:hedonic\_center 0.6373105  
## 45 framing\_conditionFrameCode2:norm\_condition4:egoistic\_center 0.6417248  
## 46 norm\_condition4:egoistic\_center 0.6475737  
## 47 framing\_conditionFrameCode2:norm\_condition3:hedonic\_center 0.6478347  
## 48 egoistic\_center 0.6535775  
## 49 framing\_conditionFrameCode1:norm\_condition4:egoistic\_center 0.6583193  
## 50 framing\_conditionFrameCode1:egoistic\_center 0.6943483  
## 51 framing\_conditionFrameCode1:norm\_condition1:egoistic\_center 0.6950281  
## 52 framing\_conditionFrameCode1:norm\_condition3:egoistic\_center 0.7069670  
## 53 norm\_condition1:egoistic\_center 0.7185515  
## 54 norm\_condition3:egoistic\_center 0.7214074  
## 55 framing\_conditionFrameCode2:egoistic\_center 0.7242443  
## 56 Gender1 0.7361285  
## 57 framing\_conditionFrameCode1:norm\_condition2:egoistic\_center 0.7423079  
## 58 framing\_conditionFrameCode2:norm\_condition3:egoistic\_center 0.7458102  
## 59 self\_dec\_center 0.7531134  
## 60 framing\_conditionFrameCode2:norm\_condition1:egoistic\_center 0.7536682  
## 61 norm\_condition2:egoistic\_center 0.7572173  
## 62 clothing\_center 0.7664049  
## 63 framing\_conditionFrameCode2:norm\_condition2:egoistic\_center 0.7687743  
## 64 Age\_center 0.7874300  
## 65 impress\_manag\_center 0.7917244  
## 66 framing\_conditionFrameCode1:norm\_condition3:ingroup\_center 0.8430878  
## 67 framing\_conditionFrameCode1:norm\_condition2:ingroup\_center 0.8559782  
## 68 ingroup\_center 0.8626521  
## 69 framing\_conditionFrameCode1:norm\_condition4 0.8664128  
## 70 norm\_condition3:ingroup\_center 0.8678129  
## 71 norm\_condition2:ingroup\_center 0.8678552  
## 72 framing\_conditionFrameCode1:ingroup\_center 0.8696816  
## 73 framing\_conditionFrameCode1:norm\_condition1:ingroup\_center 0.8813308  
## 74 norm\_condition1:ingroup\_center 0.8840840  
## 75 framing\_conditionFrameCode2:norm\_condition1:ingroup\_center 0.8852120  
## 76 framing\_conditionFrameCode2:norm\_condition2:ingroup\_center 0.8875265  
## 77 framing\_conditionFrameCode2:norm\_condition3:ingroup\_center 0.8887132  
## 78 framing\_conditionFrameCode2:ingroup\_center 0.8938246  
## 79 norm\_condition4 0.8963272  
## 80 norm\_condition4:ingroup\_center 0.9021843  
## 81 framing\_conditionFrameCode1:norm\_condition4:ingroup\_center 0.9046569  
## 82 framing\_conditionFrameCode1 0.9075346  
## 83 framing\_conditionFrameCode2:norm\_condition4:ingroup\_center 0.9128740  
## 84 framing\_conditionFrameCode1:norm\_condition2 0.9141155  
## 85 norm\_condition2 0.9240056  
## 86 framing\_conditionFrameCode1:norm\_condition3 0.9252694  
## 87 framing\_conditionFrameCode2 0.9294458  
## 88 norm\_condition3 0.9307501  
## 89 framing\_conditionFrameCode2:norm\_condition4 0.9307935  
## 90 framing\_conditionFrameCode2:norm\_condition2 0.9334828  
## 91 framing\_conditionFrameCode2:norm\_condition1 0.9376565  
## 92 framing\_conditionFrameCode2:norm\_condition3 0.9385990  
## 93 framing\_conditionFrameCode1:norm\_condition1 0.9408919  
## 94 norm\_condition1 0.9464826  
## VIF  
## 1 3.704209  
## 2 3.024893  
## 3 2.941037  
## 4 2.732774  
## 5 2.593595  
## 6 2.549745  
## 7 2.432898  
## 8 2.430476  
## 9 2.420572  
## 10 2.290713  
## 11 2.287914  
## 12 2.273312  
## 13 2.234768  
## 14 2.228382  
## 15 2.215389  
## 16 2.150334  
## 17 2.121753  
## 18 2.117480  
## 19 2.079005  
## 20 2.077124  
## 21 2.044357  
## 22 2.031732  
## 23 2.022230  
## 24 2.009153  
## 25 1.980937  
## 26 1.932735  
## 27 1.928323  
## 28 1.912956  
## 29 1.902770  
## 30 1.887186  
## 31 1.847758  
## 32 1.816848  
## 33 1.815970  
## 34 1.793509  
## 35 1.782008  
## 36 1.766288  
## 37 1.719409  
## 38 1.704357  
## 39 1.670548  
## 40 1.650756  
## 41 1.641144  
## 42 1.633494  
## 43 1.622587  
## 44 1.569094  
## 45 1.558300  
## 46 1.544226  
## 47 1.543604  
## 48 1.530041  
## 49 1.519020  
## 50 1.440199  
## 51 1.438791  
## 52 1.414493  
## 53 1.391689  
## 54 1.386179  
## 55 1.380750  
## 56 1.358459  
## 57 1.347150  
## 58 1.340824  
## 59 1.327821  
## 60 1.326844  
## 61 1.320625  
## 62 1.304793  
## 63 1.300772  
## 64 1.269954  
## 65 1.263066  
## 66 1.186116  
## 67 1.168254  
## 68 1.159216  
## 69 1.154184  
## 70 1.152322  
## 71 1.152266  
## 72 1.149846  
## 73 1.134648  
## 74 1.131114  
## 75 1.129673  
## 76 1.126727  
## 77 1.125222  
## 78 1.118788  
## 79 1.115664  
## 80 1.108421  
## 81 1.105391  
## 82 1.101886  
## 83 1.095441  
## 84 1.093954  
## 85 1.082244  
## 86 1.080766  
## 87 1.075910  
## 88 1.074402  
## 89 1.074352  
## 90 1.071257  
## 91 1.066489  
## 92 1.065418  
## 93 1.062821  
## 94 1.056543

Either a *low* tolerance (below 0.20 is one rule of thumb) or a *high* VIF (above 5 or 10) is an indication of a problem with multicollinearity.

## Imputed Data 3

### Regression summary

Succinct summary

summary\_imp3$coefficients %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Estimate | Std. Error | t value | Pr(>|t|) |
| --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.41 | 0.000 |
| framing\_conditionFrameCode1 | 0.03 | 0.08 | 0.43 | 0.670 |
| framing\_conditionFrameCode2 | 0.14 | 0.07 | 1.95 | 0.051 |
| norm\_condition1 | -0.01 | 0.05 | -0.27 | 0.789 |
| norm\_condition2 | 0.03 | 0.03 | 0.99 | 0.325 |
| norm\_condition3 | -0.04 | 0.02 | -1.98 | 0.048 |
| norm\_condition4 | -0.02 | 0.02 | -0.90 | 0.367 |
| biospheric\_center | 0.36 | 0.05 | 7.87 | 0.000 |
| altruistic\_center | 0.07 | 0.06 | 1.12 | 0.265 |
| egoistic\_center | -0.30 | 0.04 | -7.00 | 0.000 |
| hedonic\_center | -0.09 | 0.05 | -1.72 | 0.085 |
| ingroup\_center | 0.03 | 0.03 | 0.80 | 0.425 |
| self\_dec\_center | -0.11 | 0.04 | -2.46 | 0.014 |
| impress\_manag\_center | -0.01 | 0.04 | -0.25 | 0.801 |
| clothing\_center | 0.00 | 0.05 | 0.08 | 0.936 |
| Gender1 | 0.15 | 0.08 | 1.96 | 0.050 |
| Age\_center | -0.04 | 0.02 | -2.25 | 0.024 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.19 | 0.13 | 1.54 | 0.124 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.11 | 0.11 | -0.96 | 0.338 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.08 | -0.06 | 0.953 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.04 | 0.06 | -0.63 | 0.531 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.03 | 0.05 | 0.49 | 0.623 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.05 | 0.53 | 0.597 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.03 | 0.04 | 0.63 | 0.530 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.01 | 0.03 | -0.39 | 0.700 |
| framing\_conditionFrameCode1:biospheric\_center | -0.04 | 0.12 | -0.31 | 0.756 |
| framing\_conditionFrameCode2:biospheric\_center | 0.06 | 0.09 | 0.60 | 0.547 |
| norm\_condition1:biospheric\_center | -0.08 | 0.07 | -1.18 | 0.239 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.84 | 0.067 |
| norm\_condition3:biospheric\_center | -0.05 | 0.03 | -1.78 | 0.075 |
| norm\_condition4:biospheric\_center | -0.04 | 0.03 | -1.71 | 0.088 |
| framing\_conditionFrameCode1:altruistic\_center | -0.01 | 0.16 | -0.04 | 0.965 |
| framing\_conditionFrameCode2:altruistic\_center | -0.12 | 0.13 | -0.96 | 0.335 |
| norm\_condition1:altruistic\_center | -0.11 | 0.10 | -1.14 | 0.254 |
| norm\_condition2:altruistic\_center | -0.01 | 0.05 | -0.14 | 0.890 |
| norm\_condition3:altruistic\_center | 0.04 | 0.04 | 0.87 | 0.384 |
| norm\_condition4:altruistic\_center | 0.07 | 0.03 | 2.37 | 0.018 |
| framing\_conditionFrameCode1:egoistic\_center | -0.04 | 0.10 | -0.39 | 0.697 |
| framing\_conditionFrameCode2:egoistic\_center | 0.05 | 0.09 | 0.59 | 0.554 |
| norm\_condition1:egoistic\_center | 0.03 | 0.07 | 0.45 | 0.656 |
| norm\_condition2:egoistic\_center | -0.02 | 0.04 | -0.47 | 0.640 |
| norm\_condition3:egoistic\_center | 0.02 | 0.03 | 0.69 | 0.492 |
| norm\_condition4:egoistic\_center | 0.01 | 0.02 | 0.72 | 0.471 |
| framing\_conditionFrameCode1:hedonic\_center | 0.02 | 0.13 | 0.17 | 0.862 |
| framing\_conditionFrameCode2:hedonic\_center | 0.16 | 0.11 | 1.38 | 0.167 |
| norm\_condition1:hedonic\_center | 0.03 | 0.09 | 0.30 | 0.764 |
| norm\_condition2:hedonic\_center | 0.06 | 0.05 | 1.28 | 0.199 |
| norm\_condition3:hedonic\_center | -0.05 | 0.04 | -1.38 | 0.169 |
| norm\_condition4:hedonic\_center | -0.05 | 0.03 | -1.96 | 0.050 |
| framing\_conditionFrameCode1:ingroup\_center | 0.02 | 0.08 | 0.29 | 0.770 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.81 | 0.420 |
| norm\_condition1:ingroup\_center | 0.01 | 0.05 | 0.22 | 0.828 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.34 | 0.734 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.17 | 0.864 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.86 | 0.387 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.11 | 0.18 | -0.63 | 0.529 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.05 | 0.14 | 0.36 | 0.720 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.13 | 0.10 | -1.23 | 0.220 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.12 | 0.08 | 1.40 | 0.161 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.15 | 0.08 | 1.93 | 0.053 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.07 | 0.06 | 1.20 | 0.232 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.06 | 0.07 | 0.90 | 0.368 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.11 | 0.05 | 2.35 | 0.019 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.03 | 0.24 | -0.14 | 0.888 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.19 | 0.21 | 0.94 | 0.349 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.26 | 0.14 | 1.91 | 0.056 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | -0.01 | 0.11 | -0.11 | 0.911 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.16 | 0.11 | -1.47 | 0.142 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.08 | 0.08 | -0.89 | 0.376 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | 0.01 | 0.08 | 0.07 | 0.943 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.09 | 0.06 | -1.50 | 0.135 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | -0.02 | 0.17 | -0.09 | 0.929 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.16 | 0.14 | 1.16 | 0.248 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.02 | 0.09 | -0.24 | 0.813 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.16 | 0.08 | 2.09 | 0.037 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.31 | 0.191 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.02 | 0.06 | 0.44 | 0.658 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.06 | 0.05 | -1.13 | 0.257 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.92 | 0.358 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | 0.03 | 0.22 | 0.15 | 0.878 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.24 | 0.19 | -1.27 | 0.203 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.14 | 0.12 | -1.21 | 0.226 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | 0.00 | 0.10 | -0.01 | 0.994 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.11 | 0.09 | -1.28 | 0.202 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | 0.00 | 0.07 | 0.06 | 0.951 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | -0.02 | 0.06 | -0.32 | 0.751 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.04 | 0.05 | 0.76 | 0.450 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.20 | 0.13 | 1.55 | 0.121 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.03 | 0.11 | 0.27 | 0.791 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.13 | 0.08 | 1.64 | 0.101 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.52 | 0.600 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.04 | 0.05 | 0.70 | 0.484 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.65 | 0.517 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.25 | 0.025 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.09 | 0.274 |

APA style table for regression summary

apa\_summ\_imp3 <- apa\_print(summary\_imp3)  
  
apa\_summ\_imp3$table %>%  
apa\_table(caption = "Table 4 Regression Results Using Imputed Data 3",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-69)

*Table 4 Regression Results Using Imputed Data 3*

| Predictor |  | 95% CI |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Intercept | 4.39 | [4.32, 4.45] | 128.41 | 1038 | < .001 |
| Framing conditionFrameCode1 | 0.03 | [-0.13, 0.20] | 0.43 | 1038 | .670 |
| Framing conditionFrameCode2 | 0.14 | [0.00, 0.27] | 1.95 | 1038 | .051 |
| Norm condition1 | -0.01 | [-0.12, 0.09] | -0.27 | 1038 | .789 |
| Norm condition2 | 0.03 | [-0.03, 0.09] | 0.99 | 1038 | .325 |
| Norm condition3 | -0.04 | [-0.08, 0.00] | -1.98 | 1038 | .048 |
| Norm condition4 | -0.02 | [-0.05, 0.02] | -0.90 | 1038 | .367 |
| Biospheric center | 0.36 | [0.27, 0.46] | 7.87 | 1038 | < .001 |
| Altruistic center | 0.07 | [-0.05, 0.20] | 1.12 | 1038 | .265 |
| Egoistic center | -0.30 | [-0.38, -0.21] | -7.00 | 1038 | < .001 |
| Hedonic center | -0.09 | [-0.20, 0.01] | -1.72 | 1038 | .085 |
| Ingroup center | 0.03 | [-0.04, 0.09] | 0.80 | 1038 | .425 |
| Self dec center | -0.11 | [-0.19, -0.02] | -2.46 | 1038 | .014 |
| Impress manag center | -0.01 | [-0.09, 0.07] | -0.25 | 1038 | .801 |
| Clothing center | 0.00 | [-0.08, 0.09] | 0.08 | 1038 | .936 |
| Gender1 | 0.15 | [0.00, 0.30] | 1.96 | 1038 | .050 |
| Age center | -0.04 | [-0.08, -0.01] | -2.25 | 1038 | .024 |
| Framing conditionFrameCode1 Norm condition1 | 0.19 | [-0.05, 0.44] | 1.54 | 1038 | .124 |
| Framing conditionFrameCode2 Norm condition1 | -0.11 | [-0.32, 0.11] | -0.96 | 1038 | .338 |
| Framing conditionFrameCode1 Norm condition2 | 0.00 | [-0.15, 0.14] | -0.06 | 1038 | .953 |
| Framing conditionFrameCode2 Norm condition2 | -0.04 | [-0.16, 0.08] | -0.63 | 1038 | .531 |
| Framing conditionFrameCode1 Norm condition3 | 0.03 | [-0.08, 0.13] | 0.49 | 1038 | .623 |
| Framing conditionFrameCode2 Norm condition3 | 0.02 | [-0.07, 0.11] | 0.53 | 1038 | .597 |
| Framing conditionFrameCode1 Norm condition4 | 0.03 | [-0.06, 0.11] | 0.63 | 1038 | .530 |
| Framing conditionFrameCode2 Norm condition4 | -0.01 | [-0.08, 0.05] | -0.39 | 1038 | .700 |
| Framing conditionFrameCode1 Biospheric center | -0.04 | [-0.27, 0.20] | -0.31 | 1038 | .756 |
| Framing conditionFrameCode2 Biospheric center | 0.06 | [-0.12, 0.23] | 0.60 | 1038 | .547 |
| Norm condition1 Biospheric center | -0.08 | [-0.22, 0.06] | -1.18 | 1038 | .239 |
| Norm condition2 Biospheric center | 0.08 | [-0.01, 0.16] | 1.84 | 1038 | .067 |
| Norm condition3 Biospheric center | -0.05 | [-0.11, 0.01] | -1.78 | 1038 | .075 |
| Norm condition4 Biospheric center | -0.04 | [-0.09, 0.01] | -1.71 | 1038 | .088 |
| Framing conditionFrameCode1 Altruistic center | -0.01 | [-0.31, 0.30] | -0.04 | 1038 | .965 |
| Framing conditionFrameCode2 Altruistic center | -0.12 | [-0.37, 0.13] | -0.96 | 1038 | .335 |
| Norm condition1 Altruistic center | -0.11 | [-0.31, 0.08] | -1.14 | 1038 | .254 |
| Norm condition2 Altruistic center | -0.01 | [-0.12, 0.10] | -0.14 | 1038 | .890 |
| Norm condition3 Altruistic center | 0.04 | [-0.05, 0.12] | 0.87 | 1038 | .384 |
| Norm condition4 Altruistic center | 0.07 | [0.01, 0.13] | 2.37 | 1038 | .018 |
| Framing conditionFrameCode1 Egoistic center | -0.04 | [-0.24, 0.16] | -0.39 | 1038 | .697 |
| Framing conditionFrameCode2 Egoistic center | 0.05 | [-0.12, 0.22] | 0.59 | 1038 | .554 |
| Norm condition1 Egoistic center | 0.03 | [-0.10, 0.16] | 0.45 | 1038 | .656 |
| Norm condition2 Egoistic center | -0.02 | [-0.09, 0.05] | -0.47 | 1038 | .640 |
| Norm condition3 Egoistic center | 0.02 | [-0.03, 0.07] | 0.69 | 1038 | .492 |
| Norm condition4 Egoistic center | 0.01 | [-0.03, 0.06] | 0.72 | 1038 | .471 |
| Framing conditionFrameCode1 Hedonic center | 0.02 | [-0.24, 0.28] | 0.17 | 1038 | .862 |
| Framing conditionFrameCode2 Hedonic center | 0.16 | [-0.07, 0.38] | 1.38 | 1038 | .167 |
| Norm condition1 Hedonic center | 0.03 | [-0.15, 0.20] | 0.30 | 1038 | .764 |
| Norm condition2 Hedonic center | 0.06 | [-0.03, 0.16] | 1.28 | 1038 | .199 |
| Norm condition3 Hedonic center | -0.05 | [-0.12, 0.02] | -1.38 | 1038 | .169 |
| Norm condition4 Hedonic center | -0.05 | [-0.10, 0.00] | -1.96 | 1038 | .050 |
| Framing conditionFrameCode1 Ingroup center | 0.02 | [-0.14, 0.18] | 0.29 | 1038 | .770 |
| Framing conditionFrameCode2 Ingroup center | -0.06 | [-0.20, 0.08] | -0.81 | 1038 | .420 |
| Norm condition1 Ingroup center | 0.01 | [-0.09, 0.11] | 0.22 | 1038 | .828 |
| Norm condition2 Ingroup center | -0.01 | [-0.07, 0.05] | -0.34 | 1038 | .734 |
| Norm condition3 Ingroup center | 0.00 | [-0.04, 0.05] | 0.17 | 1038 | .864 |
| Norm condition4 Ingroup center | -0.01 | [-0.05, 0.02] | -0.86 | 1038 | .387 |
| Framing conditionFrameCode1 Norm condition1 Biospheric center | -0.11 | [-0.46, 0.24] | -0.63 | 1038 | .529 |
| Framing conditionFrameCode2 Norm condition1 Biospheric center | 0.05 | [-0.23, 0.33] | 0.36 | 1038 | .720 |
| Framing conditionFrameCode1 Norm condition2 Biospheric center | -0.13 | [-0.33, 0.08] | -1.23 | 1038 | .220 |
| Framing conditionFrameCode2 Norm condition2 Biospheric center | 0.12 | [-0.05, 0.28] | 1.40 | 1038 | .161 |
| Framing conditionFrameCode1 Norm condition3 Biospheric center | 0.15 | [0.00, 0.29] | 1.93 | 1038 | .053 |
| Framing conditionFrameCode2 Norm condition3 Biospheric center | 0.07 | [-0.04, 0.18] | 1.20 | 1038 | .232 |
| Framing conditionFrameCode1 Norm condition4 Biospheric center | 0.06 | [-0.07, 0.19] | 0.90 | 1038 | .368 |
| Framing conditionFrameCode2 Norm condition4 Biospheric center | 0.11 | [0.02, 0.20] | 2.35 | 1038 | .019 |
| Framing conditionFrameCode1 Norm condition1 Altruistic center | -0.03 | [-0.51, 0.44] | -0.14 | 1038 | .888 |
| Framing conditionFrameCode2 Norm condition1 Altruistic center | 0.19 | [-0.21, 0.60] | 0.94 | 1038 | .349 |
| Framing conditionFrameCode1 Norm condition2 Altruistic center | 0.26 | [-0.01, 0.54] | 1.91 | 1038 | .056 |
| Framing conditionFrameCode2 Norm condition2 Altruistic center | -0.01 | [-0.23, 0.21] | -0.11 | 1038 | .911 |
| Framing conditionFrameCode1 Norm condition3 Altruistic center | -0.16 | [-0.36, 0.05] | -1.47 | 1038 | .142 |
| Framing conditionFrameCode2 Norm condition3 Altruistic center | -0.08 | [-0.24, 0.09] | -0.89 | 1038 | .376 |
| Framing conditionFrameCode1 Norm condition4 Altruistic center | 0.01 | [-0.14, 0.16] | 0.07 | 1038 | .943 |
| Framing conditionFrameCode2 Norm condition4 Altruistic center | -0.09 | [-0.20, 0.03] | -1.50 | 1038 | .135 |
| Framing conditionFrameCode1 Norm condition1 Egoistic center | -0.02 | [-0.35, 0.32] | -0.09 | 1038 | .929 |
| Framing conditionFrameCode2 Norm condition1 Egoistic center | 0.16 | [-0.11, 0.43] | 1.16 | 1038 | .248 |
| Framing conditionFrameCode1 Norm condition2 Egoistic center | -0.02 | [-0.19, 0.15] | -0.24 | 1038 | .813 |
| Framing conditionFrameCode2 Norm condition2 Egoistic center | 0.16 | [0.01, 0.31] | 2.09 | 1038 | .037 |
| Framing conditionFrameCode1 Norm condition3 Egoistic center | 0.08 | [-0.04, 0.21] | 1.31 | 1038 | .191 |
| Framing conditionFrameCode2 Norm condition3 Egoistic center | 0.02 | [-0.08, 0.13] | 0.44 | 1038 | .658 |
| Framing conditionFrameCode1 Norm condition4 Egoistic center | -0.06 | [-0.16, 0.04] | -1.13 | 1038 | .257 |
| Framing conditionFrameCode2 Norm condition4 Egoistic center | -0.04 | [-0.12, 0.04] | -0.92 | 1038 | .358 |
| Framing conditionFrameCode1 Norm condition1 Hedonic center | 0.03 | [-0.40, 0.47] | 0.15 | 1038 | .878 |
| Framing conditionFrameCode2 Norm condition1 Hedonic center | -0.24 | [-0.61, 0.13] | -1.27 | 1038 | .203 |
| Framing conditionFrameCode1 Norm condition2 Hedonic center | -0.14 | [-0.37, 0.09] | -1.21 | 1038 | .226 |
| Framing conditionFrameCode2 Norm condition2 Hedonic center | 0.00 | [-0.20, 0.20] | -0.01 | 1038 | .994 |
| Framing conditionFrameCode1 Norm condition3 Hedonic center | -0.11 | [-0.29, 0.06] | -1.28 | 1038 | .202 |
| Framing conditionFrameCode2 Norm condition3 Hedonic center | 0.00 | [-0.14, 0.15] | 0.06 | 1038 | .951 |
| Framing conditionFrameCode1 Norm condition4 Hedonic center | -0.02 | [-0.14, 0.10] | -0.32 | 1038 | .751 |
| Framing conditionFrameCode2 Norm condition4 Hedonic center | 0.04 | [-0.06, 0.14] | 0.76 | 1038 | .450 |
| Framing conditionFrameCode1 Norm condition1 Ingroup center | 0.20 | [-0.05, 0.45] | 1.55 | 1038 | .121 |
| Framing conditionFrameCode2 Norm condition1 Ingroup center | 0.03 | [-0.19, 0.25] | 0.27 | 1038 | .791 |
| Framing conditionFrameCode1 Norm condition2 Ingroup center | 0.13 | [-0.02, 0.28] | 1.64 | 1038 | .101 |
| Framing conditionFrameCode2 Norm condition2 Ingroup center | -0.03 | [-0.16, 0.09] | -0.52 | 1038 | .600 |
| Framing conditionFrameCode1 Norm condition3 Ingroup center | 0.04 | [-0.07, 0.14] | 0.70 | 1038 | .484 |
| Framing conditionFrameCode2 Norm condition3 Ingroup center | -0.03 | [-0.12, 0.06] | -0.65 | 1038 | .517 |
| Framing conditionFrameCode1 Norm condition4 Ingroup center | -0.09 | [-0.17, -0.01] | -2.25 | 1038 | .025 |
| Framing conditionFrameCode2 Norm condition4 Ingroup center | 0.04 | [-0.03, 0.11] | 1.09 | 1038 | .274 |

*Note.* DV = Consumer Intentions

Standardized regression coefficients

APA summary of standardized coefficients

### ANOVA summary

Anova(mod\_mice\_imp3, type = 3) %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18798.89 | 1 | 16489.85 | 0.000 |
| framing\_condition | 4.55 | 2 | 2.00 | 0.136 |
| norm\_condition | 6.57 | 4 | 1.44 | 0.218 |
| biospheric\_center | 70.58 | 1 | 61.91 | 0.000 |
| altruistic\_center | 1.42 | 1 | 1.25 | 0.265 |
| egoistic\_center | 55.91 | 1 | 49.04 | 0.000 |
| hedonic\_center | 3.39 | 1 | 2.97 | 0.085 |
| ingroup\_center | 0.73 | 1 | 0.64 | 0.425 |
| self\_dec\_center | 6.88 | 1 | 6.03 | 0.014 |
| impress\_manag\_center | 0.07 | 1 | 0.06 | 0.801 |
| clothing\_center | 0.01 | 1 | 0.01 | 0.936 |
| Gender | 4.40 | 1 | 3.86 | 0.050 |
| Age\_center | 5.79 | 1 | 5.08 | 0.024 |
| framing\_condition:norm\_condition | 5.47 | 8 | 0.60 | 0.778 |
| framing\_condition:biospheric\_center | 0.52 | 2 | 0.23 | 0.795 |
| norm\_condition:biospheric\_center | 12.27 | 4 | 2.69 | 0.030 |
| framing\_condition:altruistic\_center | 1.07 | 2 | 0.47 | 0.625 |
| norm\_condition:altruistic\_center | 9.26 | 4 | 2.03 | 0.088 |
| framing\_condition:egoistic\_center | 0.57 | 2 | 0.25 | 0.777 |
| norm\_condition:egoistic\_center | 1.71 | 4 | 0.37 | 0.827 |
| framing\_condition:hedonic\_center | 2.23 | 2 | 0.98 | 0.376 |
| norm\_condition:hedonic\_center | 8.97 | 4 | 1.97 | 0.097 |
| framing\_condition:ingroup\_center | 0.82 | 2 | 0.36 | 0.697 |
| norm\_condition:ingroup\_center | 1.06 | 4 | 0.23 | 0.920 |
| framing\_condition:norm\_condition:biospheric\_center | 17.56 | 8 | 1.92 | 0.053 |
| framing\_condition:norm\_condition:altruistic\_center | 12.00 | 8 | 1.32 | 0.232 |
| framing\_condition:norm\_condition:egoistic\_center | 11.78 | 8 | 1.29 | 0.244 |
| framing\_condition:norm\_condition:hedonic\_center | 6.29 | 8 | 0.69 | 0.701 |
| framing\_condition:norm\_condition:ingroup\_center | 13.74 | 8 | 1.51 | 0.150 |
| Residuals | 1183.35 | 1038 | NA | NA |

### Effect Size

etaSquared(mod\_mice\_imp3, type = 3, anova = TRUE) %>%   
 knitr::kable(digits = 3)

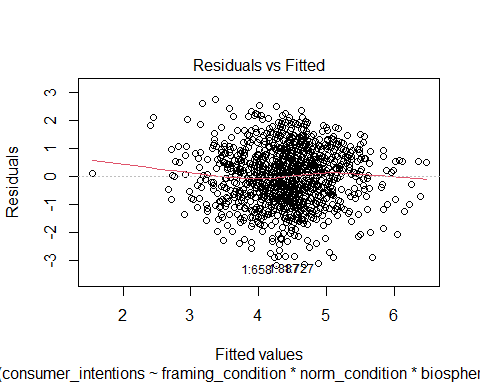
|  | eta.sq | eta.sq.part | SS | df | MS | F | p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 0.003 | 0.004 | 4.551 | 2 | 2.276 | 1.996 | 0.136 |
| norm\_condition | 0.004 | 0.006 | 6.570 | 4 | 1.642 | 1.441 | 0.218 |
| biospheric\_center | 0.044 | 0.056 | 70.576 | 1 | 70.576 | 61.907 | 0.000 |
| altruistic\_center | 0.001 | 0.001 | 1.421 | 1 | 1.421 | 1.246 | 0.265 |
| egoistic\_center | 0.035 | 0.045 | 55.907 | 1 | 55.907 | 49.040 | 0.000 |
| hedonic\_center | 0.002 | 0.003 | 3.388 | 1 | 3.388 | 2.971 | 0.085 |
| ingroup\_center | 0.000 | 0.001 | 0.727 | 1 | 0.727 | 0.638 | 0.425 |
| self\_dec\_center | 0.004 | 0.006 | 6.878 | 1 | 6.878 | 6.033 | 0.014 |
| impress\_manag\_center | 0.000 | 0.000 | 0.072 | 1 | 0.072 | 0.064 | 0.801 |
| clothing\_center | 0.000 | 0.000 | 0.007 | 1 | 0.007 | 0.006 | 0.936 |
| Gender | 0.003 | 0.004 | 4.397 | 1 | 4.397 | 3.857 | 0.050 |
| Age\_center | 0.004 | 0.005 | 5.794 | 1 | 5.794 | 5.082 | 0.024 |
| framing\_condition:norm\_condition | 0.003 | 0.005 | 5.473 | 8 | 0.684 | 0.600 | 0.778 |
| framing\_condition:biospheric\_center | 0.000 | 0.000 | 0.524 | 2 | 0.262 | 0.230 | 0.795 |
| norm\_condition:biospheric\_center | 0.008 | 0.010 | 12.266 | 4 | 3.067 | 2.690 | 0.030 |
| framing\_condition:altruistic\_center | 0.001 | 0.001 | 1.073 | 2 | 0.536 | 0.470 | 0.625 |
| norm\_condition:altruistic\_center | 0.006 | 0.008 | 9.261 | 4 | 2.315 | 2.031 | 0.088 |
| framing\_condition:egoistic\_center | 0.000 | 0.000 | 0.574 | 2 | 0.287 | 0.252 | 0.777 |
| norm\_condition:egoistic\_center | 0.001 | 0.001 | 1.705 | 4 | 0.426 | 0.374 | 0.827 |
| framing\_condition:hedonic\_center | 0.001 | 0.002 | 2.232 | 2 | 1.116 | 0.979 | 0.376 |
| norm\_condition:hedonic\_center | 0.006 | 0.008 | 8.967 | 4 | 2.242 | 1.966 | 0.097 |
| framing\_condition:ingroup\_center | 0.001 | 0.001 | 0.824 | 2 | 0.412 | 0.362 | 0.697 |
| norm\_condition:ingroup\_center | 0.001 | 0.001 | 1.063 | 4 | 0.266 | 0.233 | 0.920 |
| framing\_condition:norm\_condition:biospheric\_center | 0.011 | 0.015 | 17.556 | 8 | 2.194 | 1.925 | 0.053 |
| framing\_condition:norm\_condition:altruistic\_center | 0.008 | 0.010 | 11.997 | 8 | 1.500 | 1.315 | 0.232 |
| framing\_condition:norm\_condition:egoistic\_center | 0.007 | 0.010 | 11.779 | 8 | 1.472 | 1.292 | 0.244 |
| framing\_condition:norm\_condition:hedonic\_center | 0.004 | 0.005 | 6.286 | 8 | 0.786 | 0.689 | 0.701 |
| framing\_condition:norm\_condition:ingroup\_center | 0.009 | 0.011 | 13.745 | 8 | 1.718 | 1.507 | 0.150 |
| Residuals | 0.740 | NA | 1183.348 | 1038 | 1.140 | NA | NA |

### Regression Diagnostics

#### Checking non-linearity

First, assess non-linearity using a residuals plots:

plot(mod\_mice\_imp3, 1)

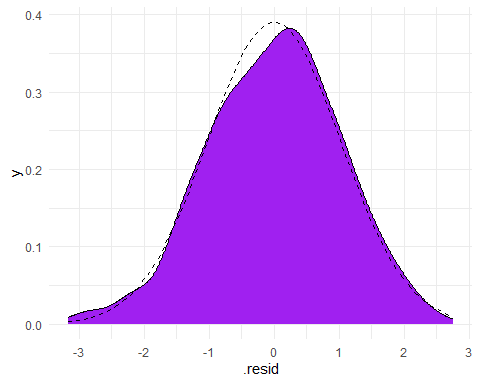


There does not appear to be a systematic pattern suggesting an uncaptured, non-linear trend.

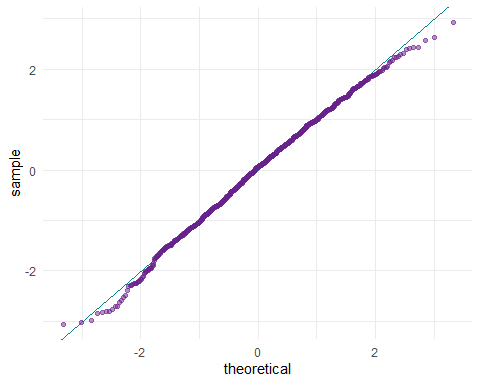
#### Checking non-normally distributed errors

Second, assess non-normally distributed errors by plotting the residuals & using a QQ-plot:

# storing residuals  
store\_residuals <- augment(mod\_mice\_imp3)  
  
# plotting histogram of residuals  
ggplot(data = store\_residuals, aes(x = .resid)) +   
 geom\_density(fill = "purple") +   
 stat\_function(linetype = 2,   
 fun = dnorm,   
 args = list(mean = mean(store\_residuals$.resid),   
 sd = sd(store\_residuals$.resid))) +  
 theme\_minimal()



# QQ-plot  
ggplot(mod\_mice\_imp2) +  
 geom\_abline(color = "turquoise4") +   
 stat\_qq(aes(sample = .stdresid), color = "darkorchid4", alpha = .50) +  
 theme\_minimal()

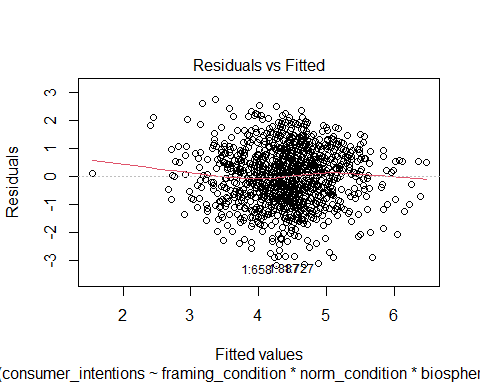


The distribution of residuals & QQ-plot suggest approximately normally distributed residuals.

#### Checking heteroscedasticity

Third, check for heteroscedasticity by looking at spread of residuals on residuals plot:

plot(mod\_mice\_imp3, 1)

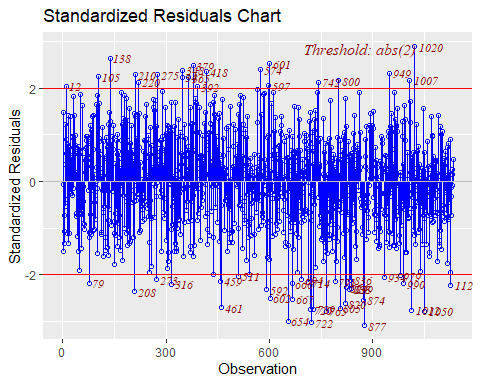


The spread of the residuals appears to be approximately the same across the range of fitted values.

#### Checking multivariate outliers

Outliers based on distance from model using standardized residuals:

# using olsrr function  
ols\_plot\_resid\_stand(mod\_mice\_imp3)



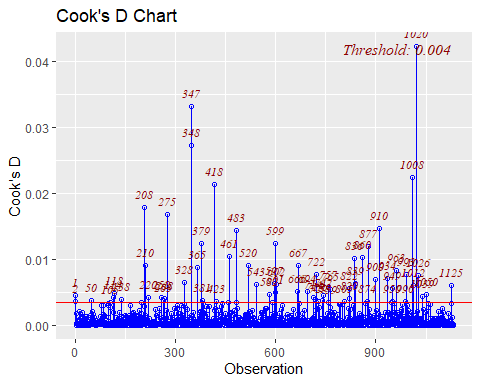
# or grabbing from model augment output  
model\_aug <- augment(mod\_mice\_imp3)  
  
model\_aug$id <- mod\_mice\_imp3$.rownames  
  
std\_resids <- model\_aug %>%   
 dplyr::select(.rownames, .std.resid) %>%  
 arrange(desc(abs(.std.resid)))  
  
print(std\_resids, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .std.resid  
## <chr> <dbl>  
## 1 1:887 -3.09  
## 2 1:727 -3.03  
## 3 1:658 -3.00  
## 4 1:1034 2.90  
## 5 1:1064 -2.79  
## 6 1:771 -2.78  
## 7 1:1026 -2.77  
## 8 1:725 -2.75  
## 9 1:734 -2.74  
## 10 1:813 -2.72  
## 11 1:465 -2.71  
## 12 1:140 2.65  
## 13 1:828 -2.63  
## 14 1:884 -2.54  
## 15 1:605 2.53  
## # ℹ 1,118 more rows

Examine outliers with standardized residuals greater than +/-2 or +/-3.

Outliers based on influence on model using Cook’s Distance:

# using olsrr function  
ols\_plot\_cooksd\_chart(mod\_mice\_imp3)



# or grabbing from model augment output  
cooks\_d <- model\_aug %>%   
 dplyr::select(.rownames, .cooksd) %>%  
 arrange(desc(abs(.cooksd)))  
  
print(cooks\_d, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .cooksd  
## <chr> <dbl>  
## 1 1:1034 0.0422  
## 2 1:351 0.0331  
## 3 1:352 0.0273  
## 4 1:1022 0.0225  
## 5 1:422 0.0213  
## 6 1:211 0.0179  
## 7 1:278 0.0168  
## 8 1:921 0.0147  
## 9 1:487 0.0144  
## 10 1:603 0.0125  
## 11 1:383 0.0124  
## 12 1:887 0.0120  
## 13 1:465 0.0105  
## 14 1:870 0.0103  
## 15 1:844 0.0102  
## # ℹ 1,118 more rows

One standard is that Cook’s D values greater than 3 times the average Cook’s D values are worth investigating.

#### Checking multicollinearity

Using VIFs & tolerance:

ols\_vif\_tol(mod\_mice\_imp3) %>%  
 arrange(desc(abs(VIF)))

## Variables Tolerance  
## 1 framing\_conditionFrameCode1:norm\_condition4:altruistic\_center 0.2646654  
## 2 norm\_condition4:altruistic\_center 0.3253857  
## 3 framing\_conditionFrameCode1:norm\_condition4:biospheric\_center 0.3292087  
## 4 framing\_conditionFrameCode1:altruistic\_center 0.3626266  
## 5 altruistic\_center 0.3831514  
## 6 norm\_condition4:biospheric\_center 0.3844334  
## 7 framing\_conditionFrameCode1:norm\_condition1:altruistic\_center 0.4048000  
## 8 framing\_conditionFrameCode1:norm\_condition2:altruistic\_center 0.4076756  
## 9 framing\_conditionFrameCode2:norm\_condition4:altruistic\_center 0.4090070  
## 10 framing\_conditionFrameCode1:norm\_condition4:hedonic\_center 0.4333636  
## 11 framing\_conditionFrameCode1:biospheric\_center 0.4338271  
## 12 norm\_condition1:altruistic\_center 0.4376382  
## 13 framing\_conditionFrameCode1:norm\_condition3:altruistic\_center 0.4458530  
## 14 norm\_condition2:altruistic\_center 0.4490801  
## 15 framing\_conditionFrameCode1:norm\_condition2:biospheric\_center 0.4494008  
## 16 framing\_conditionFrameCode2:altruistic\_center 0.4630352  
## 17 framing\_conditionFrameCode2:norm\_condition4:biospheric\_center 0.4655357  
## 18 biospheric\_center 0.4709227  
## 19 norm\_condition3:altruistic\_center 0.4790388  
## 20 framing\_conditionFrameCode2:norm\_condition1:altruistic\_center 0.4801500  
## 21 norm\_condition4:hedonic\_center 0.4891069  
## 22 framing\_conditionFrameCode1:norm\_condition3:biospheric\_center 0.4892679  
## 23 norm\_condition2:biospheric\_center 0.4955647  
## 24 framing\_conditionFrameCode2:norm\_condition2:altruistic\_center 0.4959092  
## 25 framing\_conditionFrameCode1:norm\_condition1:biospheric\_center 0.5059155  
## 26 norm\_condition3:biospheric\_center 0.5169201  
## 27 norm\_condition1:biospheric\_center 0.5198041  
## 28 framing\_conditionFrameCode1:hedonic\_center 0.5213830  
## 29 framing\_conditionFrameCode2:norm\_condition3:altruistic\_center 0.5218276  
## 30 framing\_conditionFrameCode2:biospheric\_center 0.5291944  
## 31 framing\_conditionFrameCode2:norm\_condition1:biospheric\_center 0.5423550  
## 32 hedonic\_center 0.5487311  
## 33 framing\_conditionFrameCode1:norm\_condition1:hedonic\_center 0.5496669  
## 34 framing\_conditionFrameCode2:norm\_condition2:biospheric\_center 0.5496744  
## 35 framing\_conditionFrameCode2:norm\_condition4:hedonic\_center 0.5597895  
## 36 framing\_conditionFrameCode2:norm\_condition3:biospheric\_center 0.5655234  
## 37 framing\_conditionFrameCode1:norm\_condition3:hedonic\_center 0.5804848  
## 38 norm\_condition1:hedonic\_center 0.5850913  
## 39 framing\_conditionFrameCode1:norm\_condition2:hedonic\_center 0.5938284  
## 40 framing\_conditionFrameCode2:hedonic\_center 0.6039136  
## 41 norm\_condition2:hedonic\_center 0.6094085  
## 42 norm\_condition3:hedonic\_center 0.6094580  
## 43 framing\_conditionFrameCode2:norm\_condition1:hedonic\_center 0.6160532  
## 44 framing\_conditionFrameCode2:norm\_condition2:hedonic\_center 0.6369645  
## 45 framing\_conditionFrameCode2:norm\_condition4:egoistic\_center 0.6405413  
## 46 norm\_condition4:egoistic\_center 0.6464233  
## 47 framing\_conditionFrameCode2:norm\_condition3:hedonic\_center 0.6474928  
## 48 egoistic\_center 0.6571619  
## 49 framing\_conditionFrameCode1:norm\_condition4:egoistic\_center 0.6603881  
## 50 framing\_conditionFrameCode1:egoistic\_center 0.6960949  
## 51 framing\_conditionFrameCode1:norm\_condition1:egoistic\_center 0.7019351  
## 52 framing\_conditionFrameCode1:norm\_condition3:egoistic\_center 0.7085127  
## 53 norm\_condition3:egoistic\_center 0.7229544  
## 54 norm\_condition1:egoistic\_center 0.7231139  
## 55 framing\_conditionFrameCode2:egoistic\_center 0.7256837  
## 56 Gender1 0.7420381  
## 57 framing\_conditionFrameCode2:norm\_condition3:egoistic\_center 0.7468201  
## 58 framing\_conditionFrameCode1:norm\_condition2:egoistic\_center 0.7476975  
## 59 self\_dec\_center 0.7500830  
## 60 framing\_conditionFrameCode2:norm\_condition1:egoistic\_center 0.7567275  
## 61 norm\_condition2:egoistic\_center 0.7619499  
## 62 clothing\_center 0.7718031  
## 63 framing\_conditionFrameCode2:norm\_condition2:egoistic\_center 0.7721798  
## 64 Age\_center 0.7863001  
## 65 impress\_manag\_center 0.7923098  
## 66 framing\_conditionFrameCode1:norm\_condition3:ingroup\_center 0.8409036  
## 67 framing\_conditionFrameCode1:norm\_condition2:ingroup\_center 0.8507394  
## 68 ingroup\_center 0.8583311  
## 69 framing\_conditionFrameCode1:ingroup\_center 0.8642807  
## 70 norm\_condition2:ingroup\_center 0.8662234  
## 71 framing\_conditionFrameCode1:norm\_condition4 0.8664083  
## 72 norm\_condition3:ingroup\_center 0.8670268  
## 73 framing\_conditionFrameCode1:norm\_condition1:ingroup\_center 0.8714481  
## 74 norm\_condition1:ingroup\_center 0.8792234  
## 75 framing\_conditionFrameCode2:norm\_condition1:ingroup\_center 0.8810146  
## 76 framing\_conditionFrameCode2:norm\_condition2:ingroup\_center 0.8862367  
## 77 framing\_conditionFrameCode2:norm\_condition3:ingroup\_center 0.8875330  
## 78 framing\_conditionFrameCode2:ingroup\_center 0.8936255  
## 79 norm\_condition4 0.8960148  
## 80 norm\_condition4:ingroup\_center 0.8965288  
## 81 framing\_conditionFrameCode1:norm\_condition4:ingroup\_center 0.8967235  
## 82 framing\_conditionFrameCode1 0.9022494  
## 83 framing\_conditionFrameCode1:norm\_condition2 0.9075029  
## 84 framing\_conditionFrameCode2:norm\_condition4:ingroup\_center 0.9098697  
## 85 norm\_condition2 0.9213533  
## 86 framing\_conditionFrameCode1:norm\_condition1 0.9224280  
## 87 framing\_conditionFrameCode1:norm\_condition3 0.9233396  
## 88 framing\_conditionFrameCode2 0.9269030  
## 89 norm\_condition3 0.9294229  
## 90 framing\_conditionFrameCode2:norm\_condition4 0.9319750  
## 91 framing\_conditionFrameCode2:norm\_condition2 0.9323220  
## 92 framing\_conditionFrameCode2:norm\_condition1 0.9330936  
## 93 norm\_condition1 0.9340913  
## 94 framing\_conditionFrameCode2:norm\_condition3 0.9374448  
## VIF  
## 1 3.778356  
## 2 3.073276  
## 3 3.037587  
## 4 2.757657  
## 5 2.609934  
## 6 2.601231  
## 7 2.470356  
## 8 2.452931  
## 9 2.444946  
## 10 2.307531  
## 11 2.305066  
## 12 2.284992  
## 13 2.242892  
## 14 2.226774  
## 15 2.225185  
## 16 2.159663  
## 17 2.148063  
## 18 2.123491  
## 19 2.087514  
## 20 2.082682  
## 21 2.044543  
## 22 2.043870  
## 23 2.017900  
## 24 2.016498  
## 25 1.976615  
## 26 1.934535  
## 27 1.923802  
## 28 1.917976  
## 29 1.916342  
## 30 1.889665  
## 31 1.843811  
## 32 1.822386  
## 33 1.819284  
## 34 1.819259  
## 35 1.786386  
## 36 1.768273  
## 37 1.722698  
## 38 1.709135  
## 39 1.683988  
## 40 1.655866  
## 41 1.640936  
## 42 1.640802  
## 43 1.623237  
## 44 1.569946  
## 45 1.561179  
## 46 1.546974  
## 47 1.544419  
## 48 1.521695  
## 49 1.514261  
## 50 1.436586  
## 51 1.424633  
## 52 1.411407  
## 53 1.383213  
## 54 1.382908  
## 55 1.378011  
## 56 1.347640  
## 57 1.339011  
## 58 1.337439  
## 59 1.333186  
## 60 1.321480  
## 61 1.312422  
## 62 1.295667  
## 63 1.295035  
## 64 1.271779  
## 65 1.262133  
## 66 1.189197  
## 67 1.175448  
## 68 1.165052  
## 69 1.157032  
## 70 1.154437  
## 71 1.154190  
## 72 1.153367  
## 73 1.147515  
## 74 1.137367  
## 75 1.135055  
## 76 1.128367  
## 77 1.126719  
## 78 1.119037  
## 79 1.116053  
## 80 1.115413  
## 81 1.115171  
## 82 1.108341  
## 83 1.101925  
## 84 1.099058  
## 85 1.085360  
## 86 1.084095  
## 87 1.083025  
## 88 1.078862  
## 89 1.075936  
## 90 1.072990  
## 91 1.072591  
## 92 1.071704  
## 93 1.070559  
## 94 1.066730

Either a *low* tolerance (below 0.20 is one rule of thumb) or a *high* VIF (above 5 or 10) is an indication of a problem with multicollinearity.

## Imputed Data 4

### Regression summary

Succinct summary

summary\_imp4$coefficients %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Estimate | Std. Error | t value | Pr(>|t|) |
| --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.50 | 0.000 |
| framing\_conditionFrameCode1 | 0.03 | 0.08 | 0.40 | 0.690 |
| framing\_conditionFrameCode2 | 0.14 | 0.07 | 2.01 | 0.045 |
| norm\_condition1 | -0.01 | 0.05 | -0.27 | 0.788 |
| norm\_condition2 | 0.03 | 0.03 | 0.92 | 0.359 |
| norm\_condition3 | -0.04 | 0.02 | -1.95 | 0.052 |
| norm\_condition4 | -0.01 | 0.02 | -0.83 | 0.406 |
| biospheric\_center | 0.36 | 0.05 | 7.82 | 0.000 |
| altruistic\_center | 0.09 | 0.06 | 1.50 | 0.133 |
| egoistic\_center | -0.30 | 0.04 | -6.97 | 0.000 |
| hedonic\_center | -0.10 | 0.05 | -1.88 | 0.060 |
| ingroup\_center | 0.02 | 0.03 | 0.68 | 0.494 |
| self\_dec\_center | -0.11 | 0.04 | -2.48 | 0.013 |
| impress\_manag\_center | -0.01 | 0.04 | -0.35 | 0.723 |
| clothing\_center | 0.00 | 0.05 | 0.06 | 0.949 |
| Gender1 | 0.13 | 0.08 | 1.66 | 0.097 |
| Age\_center | -0.05 | 0.02 | -3.00 | 0.003 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.20 | 0.13 | 1.58 | 0.115 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.11 | 0.11 | -0.97 | 0.331 |
| framing\_conditionFrameCode1:norm\_condition2 | -0.01 | 0.08 | -0.16 | 0.874 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.03 | 0.06 | -0.56 | 0.577 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.03 | 0.05 | 0.58 | 0.561 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.05 | 0.49 | 0.623 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.03 | 0.04 | 0.82 | 0.411 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.02 | 0.03 | -0.55 | 0.581 |
| framing\_conditionFrameCode1:biospheric\_center | -0.07 | 0.12 | -0.61 | 0.544 |
| framing\_conditionFrameCode2:biospheric\_center | 0.07 | 0.09 | 0.79 | 0.429 |
| norm\_condition1:biospheric\_center | -0.07 | 0.07 | -0.96 | 0.338 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.92 | 0.055 |
| norm\_condition3:biospheric\_center | -0.04 | 0.03 | -1.54 | 0.123 |
| norm\_condition4:biospheric\_center | -0.05 | 0.02 | -1.89 | 0.059 |
| framing\_conditionFrameCode1:altruistic\_center | 0.06 | 0.15 | 0.39 | 0.697 |
| framing\_conditionFrameCode2:altruistic\_center | -0.15 | 0.12 | -1.24 | 0.215 |
| norm\_condition1:altruistic\_center | -0.16 | 0.10 | -1.63 | 0.104 |
| norm\_condition2:altruistic\_center | -0.03 | 0.05 | -0.58 | 0.561 |
| norm\_condition3:altruistic\_center | 0.02 | 0.04 | 0.57 | 0.570 |
| norm\_condition4:altruistic\_center | 0.07 | 0.03 | 2.25 | 0.025 |
| framing\_conditionFrameCode1:egoistic\_center | -0.03 | 0.10 | -0.28 | 0.777 |
| framing\_conditionFrameCode2:egoistic\_center | 0.04 | 0.09 | 0.48 | 0.635 |
| norm\_condition1:egoistic\_center | 0.06 | 0.07 | 0.92 | 0.360 |
| norm\_condition2:egoistic\_center | -0.01 | 0.04 | -0.30 | 0.768 |
| norm\_condition3:egoistic\_center | 0.02 | 0.03 | 0.69 | 0.491 |
| norm\_condition4:egoistic\_center | 0.02 | 0.02 | 0.81 | 0.418 |
| framing\_conditionFrameCode1:hedonic\_center | -0.03 | 0.13 | -0.20 | 0.842 |
| framing\_conditionFrameCode2:hedonic\_center | 0.17 | 0.11 | 1.50 | 0.133 |
| norm\_condition1:hedonic\_center | 0.03 | 0.09 | 0.37 | 0.713 |
| norm\_condition2:hedonic\_center | 0.07 | 0.05 | 1.50 | 0.134 |
| norm\_condition3:hedonic\_center | -0.04 | 0.04 | -1.05 | 0.296 |
| norm\_condition4:hedonic\_center | -0.04 | 0.02 | -1.76 | 0.079 |
| framing\_conditionFrameCode1:ingroup\_center | 0.02 | 0.08 | 0.23 | 0.817 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.81 | 0.415 |
| norm\_condition1:ingroup\_center | 0.01 | 0.05 | 0.11 | 0.911 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.39 | 0.694 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.21 | 0.835 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.78 | 0.433 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.03 | 0.18 | -0.15 | 0.881 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.03 | 0.14 | 0.24 | 0.809 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.13 | 0.10 | -1.26 | 0.207 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.11 | 0.08 | 1.29 | 0.198 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.14 | 0.08 | 1.86 | 0.064 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.06 | 0.06 | 1.05 | 0.295 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.05 | 0.07 | 0.70 | 0.484 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.12 | 0.05 | 2.53 | 0.011 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.22 | 0.24 | -0.92 | 0.356 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.25 | 0.20 | 1.23 | 0.217 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.22 | 0.14 | 1.64 | 0.102 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | 0.03 | 0.11 | 0.23 | 0.820 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.17 | 0.11 | -1.61 | 0.107 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.05 | 0.08 | -0.60 | 0.546 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | 0.00 | 0.08 | 0.00 | 0.997 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.08 | 0.06 | -1.43 | 0.154 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.08 | 0.17 | 0.48 | 0.631 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.12 | 0.14 | 0.91 | 0.363 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.01 | 0.09 | -0.11 | 0.913 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.16 | 0.08 | 2.05 | 0.041 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.23 | 0.218 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.02 | 0.06 | 0.41 | 0.685 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.05 | 0.05 | -0.94 | 0.345 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.93 | 0.352 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | 0.04 | 0.22 | 0.21 | 0.837 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.25 | 0.19 | -1.35 | 0.178 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.11 | 0.12 | -0.96 | 0.338 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | -0.02 | 0.10 | -0.15 | 0.879 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.12 | 0.09 | -1.31 | 0.190 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | -0.02 | 0.07 | -0.22 | 0.825 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | 0.00 | 0.06 | -0.01 | 0.990 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.03 | 0.05 | 0.58 | 0.565 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.19 | 0.13 | 1.49 | 0.136 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.03 | 0.11 | 0.29 | 0.774 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.11 | 0.08 | 1.42 | 0.155 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.49 | 0.628 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.04 | 0.05 | 0.83 | 0.409 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.67 | 0.506 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.17 | 0.030 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.14 | 0.256 |

APA style table for regression summary

apa\_summ\_imp4 <- apa\_print(summary\_imp4)  
  
apa\_summ\_imp4$table %>%  
apa\_table(caption = "Table 5 Regression Results Using Imputed Data 4",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-83)

*Table 5 Regression Results Using Imputed Data 4*

| Predictor |  | 95% CI |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Intercept | 4.39 | [4.32, 4.46] | 128.50 | 1038 | < .001 |
| Framing conditionFrameCode1 | 0.03 | [-0.13, 0.19] | 0.40 | 1038 | .690 |
| Framing conditionFrameCode2 | 0.14 | [0.00, 0.28] | 2.01 | 1038 | .045 |
| Norm condition1 | -0.01 | [-0.11, 0.09] | -0.27 | 1038 | .788 |
| Norm condition2 | 0.03 | [-0.03, 0.09] | 0.92 | 1038 | .359 |
| Norm condition3 | -0.04 | [-0.08, 0.00] | -1.95 | 1038 | .052 |
| Norm condition4 | -0.01 | [-0.05, 0.02] | -0.83 | 1038 | .406 |
| Biospheric center | 0.36 | [0.27, 0.45] | 7.82 | 1038 | < .001 |
| Altruistic center | 0.09 | [-0.03, 0.22] | 1.50 | 1038 | .133 |
| Egoistic center | -0.30 | [-0.38, -0.21] | -6.97 | 1038 | < .001 |
| Hedonic center | -0.10 | [-0.21, 0.00] | -1.88 | 1038 | .060 |
| Ingroup center | 0.02 | [-0.04, 0.09] | 0.68 | 1038 | .494 |
| Self dec center | -0.11 | [-0.19, -0.02] | -2.48 | 1038 | .013 |
| Impress manag center | -0.01 | [-0.10, 0.07] | -0.35 | 1038 | .723 |
| Clothing center | 0.00 | [-0.09, 0.09] | 0.06 | 1038 | .949 |
| Gender1 | 0.13 | [-0.02, 0.27] | 1.66 | 1038 | .097 |
| Age center | -0.05 | [-0.09, -0.02] | -3.00 | 1038 | .003 |
| Framing conditionFrameCode1 Norm condition1 | 0.20 | [-0.05, 0.45] | 1.58 | 1038 | .115 |
| Framing conditionFrameCode2 Norm condition1 | -0.11 | [-0.32, 0.11] | -0.97 | 1038 | .331 |
| Framing conditionFrameCode1 Norm condition2 | -0.01 | [-0.16, 0.14] | -0.16 | 1038 | .874 |
| Framing conditionFrameCode2 Norm condition2 | -0.03 | [-0.16, 0.09] | -0.56 | 1038 | .577 |
| Framing conditionFrameCode1 Norm condition3 | 0.03 | [-0.07, 0.13] | 0.58 | 1038 | .561 |
| Framing conditionFrameCode2 Norm condition3 | 0.02 | [-0.07, 0.11] | 0.49 | 1038 | .623 |
| Framing conditionFrameCode1 Norm condition4 | 0.03 | [-0.05, 0.12] | 0.82 | 1038 | .411 |
| Framing conditionFrameCode2 Norm condition4 | -0.02 | [-0.09, 0.05] | -0.55 | 1038 | .581 |
| Framing conditionFrameCode1 Biospheric center | -0.07 | [-0.30, 0.16] | -0.61 | 1038 | .544 |
| Framing conditionFrameCode2 Biospheric center | 0.07 | [-0.11, 0.25] | 0.79 | 1038 | .429 |
| Norm condition1 Biospheric center | -0.07 | [-0.20, 0.07] | -0.96 | 1038 | .338 |
| Norm condition2 Biospheric center | 0.08 | [0.00, 0.16] | 1.92 | 1038 | .055 |
| Norm condition3 Biospheric center | -0.04 | [-0.10, 0.01] | -1.54 | 1038 | .123 |
| Norm condition4 Biospheric center | -0.05 | [-0.09, 0.00] | -1.89 | 1038 | .059 |
| Framing conditionFrameCode1 Altruistic center | 0.06 | [-0.24, 0.36] | 0.39 | 1038 | .697 |
| Framing conditionFrameCode2 Altruistic center | -0.15 | [-0.40, 0.09] | -1.24 | 1038 | .215 |
| Norm condition1 Altruistic center | -0.16 | [-0.35, 0.03] | -1.63 | 1038 | .104 |
| Norm condition2 Altruistic center | -0.03 | [-0.14, 0.08] | -0.58 | 1038 | .561 |
| Norm condition3 Altruistic center | 0.02 | [-0.06, 0.11] | 0.57 | 1038 | .570 |
| Norm condition4 Altruistic center | 0.07 | [0.01, 0.12] | 2.25 | 1038 | .025 |
| Framing conditionFrameCode1 Egoistic center | -0.03 | [-0.23, 0.17] | -0.28 | 1038 | .777 |
| Framing conditionFrameCode2 Egoistic center | 0.04 | [-0.13, 0.21] | 0.48 | 1038 | .635 |
| Norm condition1 Egoistic center | 0.06 | [-0.07, 0.19] | 0.92 | 1038 | .360 |
| Norm condition2 Egoistic center | -0.01 | [-0.08, 0.06] | -0.30 | 1038 | .768 |
| Norm condition3 Egoistic center | 0.02 | [-0.03, 0.07] | 0.69 | 1038 | .491 |
| Norm condition4 Egoistic center | 0.02 | [-0.02, 0.06] | 0.81 | 1038 | .418 |
| Framing conditionFrameCode1 Hedonic center | -0.03 | [-0.29, 0.23] | -0.20 | 1038 | .842 |
| Framing conditionFrameCode2 Hedonic center | 0.17 | [-0.05, 0.39] | 1.50 | 1038 | .133 |
| Norm condition1 Hedonic center | 0.03 | [-0.14, 0.21] | 0.37 | 1038 | .713 |
| Norm condition2 Hedonic center | 0.07 | [-0.02, 0.17] | 1.50 | 1038 | .134 |
| Norm condition3 Hedonic center | -0.04 | [-0.11, 0.03] | -1.05 | 1038 | .296 |
| Norm condition4 Hedonic center | -0.04 | [-0.09, 0.01] | -1.76 | 1038 | .079 |
| Framing conditionFrameCode1 Ingroup center | 0.02 | [-0.14, 0.18] | 0.23 | 1038 | .817 |
| Framing conditionFrameCode2 Ingroup center | -0.06 | [-0.20, 0.08] | -0.81 | 1038 | .415 |
| Norm condition1 Ingroup center | 0.01 | [-0.10, 0.11] | 0.11 | 1038 | .911 |
| Norm condition2 Ingroup center | -0.01 | [-0.07, 0.05] | -0.39 | 1038 | .694 |
| Norm condition3 Ingroup center | 0.00 | [-0.04, 0.05] | 0.21 | 1038 | .835 |
| Norm condition4 Ingroup center | -0.01 | [-0.05, 0.02] | -0.78 | 1038 | .433 |
| Framing conditionFrameCode1 Norm condition1 Biospheric center | -0.03 | [-0.37, 0.32] | -0.15 | 1038 | .881 |
| Framing conditionFrameCode2 Norm condition1 Biospheric center | 0.03 | [-0.25, 0.31] | 0.24 | 1038 | .809 |
| Framing conditionFrameCode1 Norm condition2 Biospheric center | -0.13 | [-0.34, 0.07] | -1.26 | 1038 | .207 |
| Framing conditionFrameCode2 Norm condition2 Biospheric center | 0.11 | [-0.06, 0.27] | 1.29 | 1038 | .198 |
| Framing conditionFrameCode1 Norm condition3 Biospheric center | 0.14 | [-0.01, 0.29] | 1.86 | 1038 | .064 |
| Framing conditionFrameCode2 Norm condition3 Biospheric center | 0.06 | [-0.05, 0.17] | 1.05 | 1038 | .295 |
| Framing conditionFrameCode1 Norm condition4 Biospheric center | 0.05 | [-0.08, 0.18] | 0.70 | 1038 | .484 |
| Framing conditionFrameCode2 Norm condition4 Biospheric center | 0.12 | [0.03, 0.21] | 2.53 | 1038 | .011 |
| Framing conditionFrameCode1 Norm condition1 Altruistic center | -0.22 | [-0.69, 0.25] | -0.92 | 1038 | .356 |
| Framing conditionFrameCode2 Norm condition1 Altruistic center | 0.25 | [-0.15, 0.65] | 1.23 | 1038 | .217 |
| Framing conditionFrameCode1 Norm condition2 Altruistic center | 0.22 | [-0.04, 0.49] | 1.64 | 1038 | .102 |
| Framing conditionFrameCode2 Norm condition2 Altruistic center | 0.03 | [-0.20, 0.25] | 0.23 | 1038 | .820 |
| Framing conditionFrameCode1 Norm condition3 Altruistic center | -0.17 | [-0.38, 0.04] | -1.61 | 1038 | .107 |
| Framing conditionFrameCode2 Norm condition3 Altruistic center | -0.05 | [-0.22, 0.11] | -0.60 | 1038 | .546 |
| Framing conditionFrameCode1 Norm condition4 Altruistic center | 0.00 | [-0.15, 0.15] | 0.00 | 1038 | .997 |
| Framing conditionFrameCode2 Norm condition4 Altruistic center | -0.08 | [-0.20, 0.03] | -1.43 | 1038 | .154 |
| Framing conditionFrameCode1 Norm condition1 Egoistic center | 0.08 | [-0.25, 0.42] | 0.48 | 1038 | .631 |
| Framing conditionFrameCode2 Norm condition1 Egoistic center | 0.12 | [-0.14, 0.39] | 0.91 | 1038 | .363 |
| Framing conditionFrameCode1 Norm condition2 Egoistic center | -0.01 | [-0.18, 0.16] | -0.11 | 1038 | .913 |
| Framing conditionFrameCode2 Norm condition2 Egoistic center | 0.16 | [0.01, 0.31] | 2.05 | 1038 | .041 |
| Framing conditionFrameCode1 Norm condition3 Egoistic center | 0.08 | [-0.05, 0.20] | 1.23 | 1038 | .218 |
| Framing conditionFrameCode2 Norm condition3 Egoistic center | 0.02 | [-0.09, 0.13] | 0.41 | 1038 | .685 |
| Framing conditionFrameCode1 Norm condition4 Egoistic center | -0.05 | [-0.15, 0.05] | -0.94 | 1038 | .345 |
| Framing conditionFrameCode2 Norm condition4 Egoistic center | -0.04 | [-0.12, 0.04] | -0.93 | 1038 | .352 |
| Framing conditionFrameCode1 Norm condition1 Hedonic center | 0.04 | [-0.38, 0.47] | 0.21 | 1038 | .837 |
| Framing conditionFrameCode2 Norm condition1 Hedonic center | -0.25 | [-0.62, 0.12] | -1.35 | 1038 | .178 |
| Framing conditionFrameCode1 Norm condition2 Hedonic center | -0.11 | [-0.34, 0.12] | -0.96 | 1038 | .338 |
| Framing conditionFrameCode2 Norm condition2 Hedonic center | -0.02 | [-0.22, 0.19] | -0.15 | 1038 | .879 |
| Framing conditionFrameCode1 Norm condition3 Hedonic center | -0.12 | [-0.29, 0.06] | -1.31 | 1038 | .190 |
| Framing conditionFrameCode2 Norm condition3 Hedonic center | -0.02 | [-0.16, 0.13] | -0.22 | 1038 | .825 |
| Framing conditionFrameCode1 Norm condition4 Hedonic center | 0.00 | [-0.12, 0.12] | -0.01 | 1038 | .990 |
| Framing conditionFrameCode2 Norm condition4 Hedonic center | 0.03 | [-0.07, 0.13] | 0.58 | 1038 | .565 |
| Framing conditionFrameCode1 Norm condition1 Ingroup center | 0.19 | [-0.06, 0.44] | 1.49 | 1038 | .136 |
| Framing conditionFrameCode2 Norm condition1 Ingroup center | 0.03 | [-0.19, 0.25] | 0.29 | 1038 | .774 |
| Framing conditionFrameCode1 Norm condition2 Ingroup center | 0.11 | [-0.04, 0.26] | 1.42 | 1038 | .155 |
| Framing conditionFrameCode2 Norm condition2 Ingroup center | -0.03 | [-0.16, 0.10] | -0.49 | 1038 | .628 |
| Framing conditionFrameCode1 Norm condition3 Ingroup center | 0.04 | [-0.06, 0.15] | 0.83 | 1038 | .409 |
| Framing conditionFrameCode2 Norm condition3 Ingroup center | -0.03 | [-0.12, 0.06] | -0.67 | 1038 | .506 |
| Framing conditionFrameCode1 Norm condition4 Ingroup center | -0.09 | [-0.16, -0.01] | -2.17 | 1038 | .030 |
| Framing conditionFrameCode2 Norm condition4 Ingroup center | 0.04 | [-0.03, 0.11] | 1.14 | 1038 | .256 |

*Note.* DV = Consumer Intentions

Standardized regression coefficients

APA summary of standardized coefficients

### ANOVA summary

Anova(mod\_mice\_imp4, type = 3) %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18795.93 | 1 | 16513.15 | 0.000 |
| framing\_condition | 4.76 | 2 | 2.09 | 0.124 |
| norm\_condition | 6.12 | 4 | 1.35 | 0.251 |
| biospheric\_center | 69.53 | 1 | 61.09 | 0.000 |
| altruistic\_center | 2.58 | 1 | 2.26 | 0.133 |
| egoistic\_center | 55.27 | 1 | 48.55 | 0.000 |
| hedonic\_center | 4.04 | 1 | 3.55 | 0.060 |
| ingroup\_center | 0.53 | 1 | 0.47 | 0.494 |
| self\_dec\_center | 7.01 | 1 | 6.16 | 0.013 |
| impress\_manag\_center | 0.14 | 1 | 0.13 | 0.723 |
| clothing\_center | 0.00 | 1 | 0.00 | 0.949 |
| Gender | 3.13 | 1 | 2.75 | 0.097 |
| Age\_center | 10.22 | 1 | 8.98 | 0.003 |
| framing\_condition:norm\_condition | 6.19 | 8 | 0.68 | 0.710 |
| framing\_condition:biospheric\_center | 1.14 | 2 | 0.50 | 0.607 |
| norm\_condition:biospheric\_center | 11.80 | 4 | 2.59 | 0.035 |
| framing\_condition:altruistic\_center | 1.87 | 2 | 0.82 | 0.440 |
| norm\_condition:altruistic\_center | 10.04 | 4 | 2.21 | 0.066 |
| framing\_condition:egoistic\_center | 0.35 | 2 | 0.15 | 0.858 |
| norm\_condition:egoistic\_center | 2.50 | 4 | 0.55 | 0.700 |
| framing\_condition:hedonic\_center | 2.60 | 2 | 1.14 | 0.319 |
| norm\_condition:hedonic\_center | 7.91 | 4 | 1.74 | 0.140 |
| framing\_condition:ingroup\_center | 0.81 | 2 | 0.35 | 0.702 |
| norm\_condition:ingroup\_center | 0.93 | 4 | 0.21 | 0.936 |
| framing\_condition:norm\_condition:biospheric\_center | 16.74 | 8 | 1.84 | 0.066 |
| framing\_condition:norm\_condition:altruistic\_center | 12.25 | 8 | 1.35 | 0.217 |
| framing\_condition:norm\_condition:egoistic\_center | 10.51 | 8 | 1.15 | 0.324 |
| framing\_condition:norm\_condition:hedonic\_center | 5.75 | 8 | 0.63 | 0.752 |
| framing\_condition:norm\_condition:ingroup\_center | 12.78 | 8 | 1.40 | 0.191 |
| Residuals | 1181.49 | 1038 | NA | NA |

### Effect Size

etaSquared(mod\_mice\_imp4, type = 3, anova = TRUE) %>%   
 knitr::kable(digits = 3)

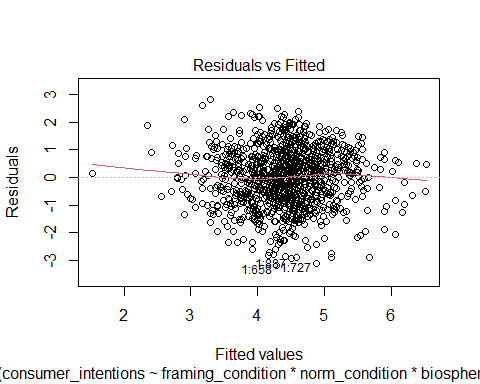
|  | eta.sq | eta.sq.part | SS | df | MS | F | p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 0.003 | 0.004 | 4.761 | 2 | 2.381 | 2.092 | 0.124 |
| norm\_condition | 0.004 | 0.005 | 6.125 | 4 | 1.531 | 1.345 | 0.251 |
| biospheric\_center | 0.044 | 0.056 | 69.532 | 1 | 69.532 | 61.087 | 0.000 |
| altruistic\_center | 0.002 | 0.002 | 2.577 | 1 | 2.577 | 2.264 | 0.133 |
| egoistic\_center | 0.035 | 0.045 | 55.265 | 1 | 55.265 | 48.553 | 0.000 |
| hedonic\_center | 0.003 | 0.003 | 4.041 | 1 | 4.041 | 3.550 | 0.060 |
| ingroup\_center | 0.000 | 0.000 | 0.534 | 1 | 0.534 | 0.469 | 0.494 |
| self\_dec\_center | 0.004 | 0.006 | 7.008 | 1 | 7.008 | 6.157 | 0.013 |
| impress\_manag\_center | 0.000 | 0.000 | 0.143 | 1 | 0.143 | 0.126 | 0.723 |
| clothing\_center | 0.000 | 0.000 | 0.005 | 1 | 0.005 | 0.004 | 0.949 |
| Gender | 0.002 | 0.003 | 3.132 | 1 | 3.132 | 2.751 | 0.097 |
| Age\_center | 0.006 | 0.009 | 10.217 | 1 | 10.217 | 8.976 | 0.003 |
| framing\_condition:norm\_condition | 0.004 | 0.005 | 6.190 | 8 | 0.774 | 0.680 | 0.710 |
| framing\_condition:biospheric\_center | 0.001 | 0.001 | 1.138 | 2 | 0.569 | 0.500 | 0.607 |
| norm\_condition:biospheric\_center | 0.007 | 0.010 | 11.799 | 4 | 2.950 | 2.592 | 0.035 |
| framing\_condition:altruistic\_center | 0.001 | 0.002 | 1.869 | 2 | 0.934 | 0.821 | 0.440 |
| norm\_condition:altruistic\_center | 0.006 | 0.008 | 10.043 | 4 | 2.511 | 2.206 | 0.066 |
| framing\_condition:egoistic\_center | 0.000 | 0.000 | 0.349 | 2 | 0.175 | 0.153 | 0.858 |
| norm\_condition:egoistic\_center | 0.002 | 0.002 | 2.501 | 4 | 0.625 | 0.549 | 0.700 |
| framing\_condition:hedonic\_center | 0.002 | 0.002 | 2.601 | 2 | 1.301 | 1.143 | 0.319 |
| norm\_condition:hedonic\_center | 0.005 | 0.007 | 7.908 | 4 | 1.977 | 1.737 | 0.140 |
| framing\_condition:ingroup\_center | 0.001 | 0.001 | 0.806 | 2 | 0.403 | 0.354 | 0.702 |
| norm\_condition:ingroup\_center | 0.001 | 0.001 | 0.934 | 4 | 0.233 | 0.205 | 0.936 |
| framing\_condition:norm\_condition:biospheric\_center | 0.010 | 0.014 | 16.740 | 8 | 2.092 | 1.838 | 0.066 |
| framing\_condition:norm\_condition:altruistic\_center | 0.008 | 0.010 | 12.253 | 8 | 1.532 | 1.346 | 0.217 |
| framing\_condition:norm\_condition:egoistic\_center | 0.007 | 0.009 | 10.506 | 8 | 1.313 | 1.154 | 0.324 |
| framing\_condition:norm\_condition:hedonic\_center | 0.004 | 0.005 | 5.750 | 8 | 0.719 | 0.632 | 0.752 |
| framing\_condition:norm\_condition:ingroup\_center | 0.008 | 0.011 | 12.781 | 8 | 1.598 | 1.404 | 0.191 |
| Residuals | 0.739 | NA | 1181.493 | 1038 | 1.138 | NA | NA |

### Regression Diagnostics

#### Checking non-linearity

First, assess non-linearity using a residuals plots:

plot(mod\_mice\_imp4, 1)

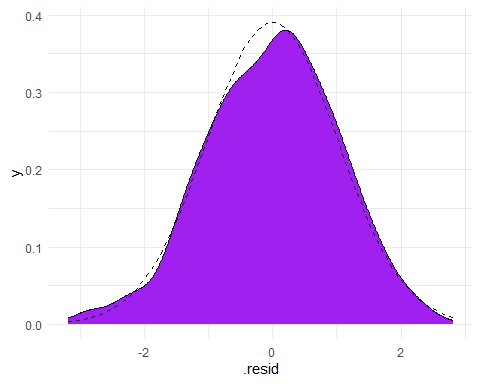


There does not appear to be a systematic pattern suggesting an uncaptured, non-linear trend.

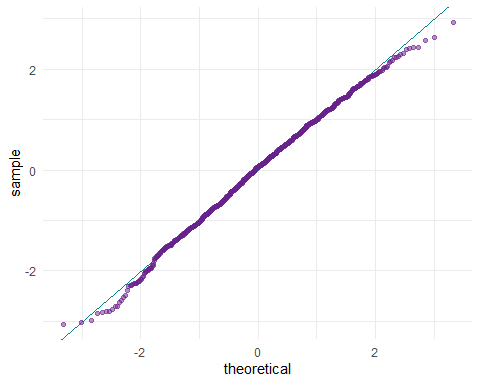
#### Checking non-normally distributed errors

Second, assess non-normally distributed errors by plotting the residuals & using a QQ-plot:

# storing residuals  
store\_residuals <- augment(mod\_mice\_imp4)  
  
# plotting histogram of residuals  
ggplot(data = store\_residuals, aes(x = .resid)) +   
 geom\_density(fill = "purple") +   
 stat\_function(linetype = 2,   
 fun = dnorm,   
 args = list(mean = mean(store\_residuals$.resid),   
 sd = sd(store\_residuals$.resid))) +  
 theme\_minimal()



# QQ-plot  
ggplot(mod\_mice\_imp2) +  
 geom\_abline(color = "turquoise4") +   
 stat\_qq(aes(sample = .stdresid), color = "darkorchid4", alpha = .50) +  
 theme\_minimal()

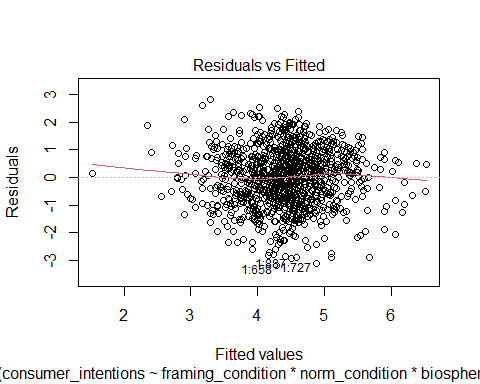


The distribution of residuals & QQ-plot suggest approximately normally distributed residuals.

#### Checking heteroscedasticity

Third, check for heteroscedasticity by looking at spread of residuals on residuals plot:

plot(mod\_mice\_imp4, 1)

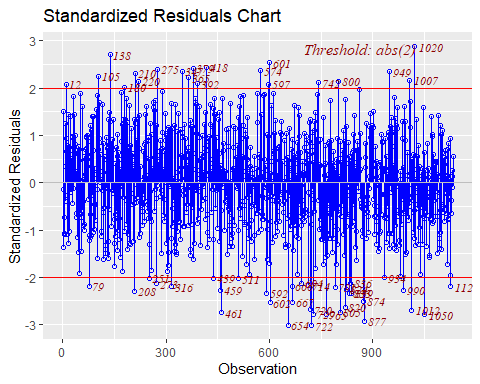


The spread of the residuals appears to be approximately the same across the range of fitted values.

#### Checking multivariate outliers

Outliers based on distance from model using standardized residuals:

# using olsrr function  
ols\_plot\_resid\_stand(mod\_mice\_imp4)



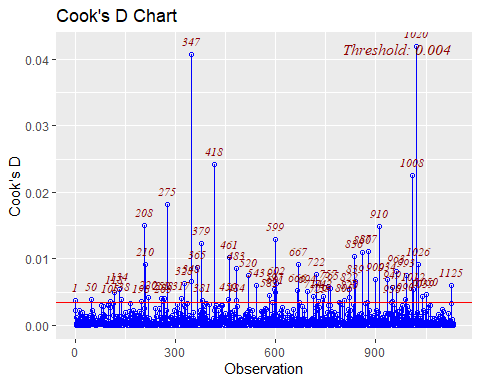
# or grabbing from model augment output  
model\_aug <- augment(mod\_mice\_imp4)  
  
model\_aug$id <- mod\_mice\_imp3$.rownames  
  
std\_resids <- model\_aug %>%   
 dplyr::select(.rownames, .std.resid) %>%  
 arrange(desc(abs(.std.resid)))  
  
print(std\_resids, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .std.resid  
## <chr> <dbl>  
## 1 1:727 -3.02  
## 2 1:658 -3.01  
## 3 1:887 -2.93  
## 4 1:1034 2.88  
## 5 1:1064 -2.80  
## 6 1:771 -2.79  
## 7 1:734 -2.79  
## 8 1:465 -2.75  
## 9 1:813 -2.74  
## 10 1:140 2.71  
## 11 1:1026 -2.70  
## 12 1:725 -2.69  
## 13 1:828 -2.63  
## 14 1:606 -2.54  
## 15 1:605 2.53  
## # ℹ 1,118 more rows

Examine outliers with standardized residuals greater than +/-2 or +/-3.

Outliers based on influence on model using Cook’s Distance:

# using olsrr function  
ols\_plot\_cooksd\_chart(mod\_mice\_imp4)



# or grabbing from model augment output  
cooks\_d <- model\_aug %>%   
 dplyr::select(.rownames, .cooksd) %>%  
 arrange(desc(abs(.cooksd)))  
  
print(cooks\_d, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .cooksd  
## <chr> <dbl>  
## 1 1:1034 0.0419   
## 2 1:351 0.0407   
## 3 1:422 0.0242   
## 4 1:1022 0.0225   
## 5 1:278 0.0182   
## 6 1:211 0.0151   
## 7 1:921 0.0149   
## 8 1:603 0.0129   
## 9 1:383 0.0122   
## 10 1:887 0.0111   
## 11 1:870 0.0109   
## 12 1:844 0.0103   
## 13 1:465 0.0102   
## 14 1:213 0.00920  
## 15 1:1040 0.00920  
## # ℹ 1,118 more rows

One standard is that Cook’s D values greater than 3 times the average Cook’s D values are worth investigating.

#### Checking multicollinearity

Using VIFs & tolerance:

ols\_vif\_tol(mod\_mice\_imp4) %>%  
 arrange(desc(abs(VIF)))

## Variables Tolerance  
## 1 framing\_conditionFrameCode1:norm\_condition4:altruistic\_center 0.2787259  
## 2 norm\_condition4:altruistic\_center 0.3368770  
## 3 framing\_conditionFrameCode1:norm\_condition4:biospheric\_center 0.3608868  
## 4 framing\_conditionFrameCode1:altruistic\_center 0.3749949  
## 5 altruistic\_center 0.3948997  
## 6 norm\_condition4:biospheric\_center 0.4098463  
## 7 framing\_conditionFrameCode2:norm\_condition4:altruistic\_center 0.4164791  
## 8 framing\_conditionFrameCode1:norm\_condition2:altruistic\_center 0.4167573  
## 9 framing\_conditionFrameCode1:norm\_condition1:altruistic\_center 0.4324988  
## 10 framing\_conditionFrameCode1:norm\_condition4:hedonic\_center 0.4428049  
## 11 framing\_conditionFrameCode1:norm\_condition3:altruistic\_center 0.4451081  
## 12 framing\_conditionFrameCode1:biospheric\_center 0.4480298  
## 13 framing\_conditionFrameCode1:norm\_condition2:biospheric\_center 0.4522690  
## 14 norm\_condition1:altruistic\_center 0.4556898  
## 15 norm\_condition2:altruistic\_center 0.4569284  
## 16 framing\_conditionFrameCode2:altruistic\_center 0.4704577  
## 17 norm\_condition3:altruistic\_center 0.4786336  
## 18 biospheric\_center 0.4827838  
## 19 framing\_conditionFrameCode2:norm\_condition4:biospheric\_center 0.4833163  
## 20 framing\_conditionFrameCode1:norm\_condition3:biospheric\_center 0.4870899  
## 21 framing\_conditionFrameCode2:norm\_condition1:altruistic\_center 0.4890294  
## 22 norm\_condition4:hedonic\_center 0.4965795  
## 23 norm\_condition2:biospheric\_center 0.4982647  
## 24 framing\_conditionFrameCode2:norm\_condition2:altruistic\_center 0.5013304  
## 25 norm\_condition3:biospheric\_center 0.5149512  
## 26 framing\_conditionFrameCode1:hedonic\_center 0.5218931  
## 27 framing\_conditionFrameCode1:norm\_condition1:biospheric\_center 0.5229439  
## 28 framing\_conditionFrameCode2:norm\_condition3:altruistic\_center 0.5234796  
## 29 norm\_condition1:biospheric\_center 0.5319334  
## 30 framing\_conditionFrameCode2:biospheric\_center 0.5362225  
## 31 framing\_conditionFrameCode2:norm\_condition1:biospheric\_center 0.5481460  
## 32 hedonic\_center 0.5500539  
## 33 framing\_conditionFrameCode2:norm\_condition2:biospheric\_center 0.5526572  
## 34 framing\_conditionFrameCode1:norm\_condition1:hedonic\_center 0.5534001  
## 35 framing\_conditionFrameCode2:norm\_condition4:hedonic\_center 0.5635753  
## 36 framing\_conditionFrameCode2:norm\_condition3:biospheric\_center 0.5653253  
## 37 framing\_conditionFrameCode1:norm\_condition3:hedonic\_center 0.5783655  
## 38 norm\_condition1:hedonic\_center 0.5850825  
## 39 framing\_conditionFrameCode1:norm\_condition2:hedonic\_center 0.5938642  
## 40 framing\_conditionFrameCode2:hedonic\_center 0.6055786  
## 41 norm\_condition3:hedonic\_center 0.6062481  
## 42 norm\_condition2:hedonic\_center 0.6093674  
## 43 framing\_conditionFrameCode2:norm\_condition1:hedonic\_center 0.6139506  
## 44 framing\_conditionFrameCode2:norm\_condition2:hedonic\_center 0.6373409  
## 45 framing\_conditionFrameCode2:norm\_condition4:egoistic\_center 0.6434113  
## 46 framing\_conditionFrameCode2:norm\_condition3:hedonic\_center 0.6453283  
## 47 norm\_condition4:egoistic\_center 0.6505184  
## 48 egoistic\_center 0.6532226  
## 49 framing\_conditionFrameCode1:norm\_condition4:egoistic\_center 0.6623388  
## 50 framing\_conditionFrameCode1:norm\_condition1:egoistic\_center 0.6921463  
## 51 framing\_conditionFrameCode1:egoistic\_center 0.6929361  
## 52 framing\_conditionFrameCode1:norm\_condition3:egoistic\_center 0.7028212  
## 53 norm\_condition1:egoistic\_center 0.7193225  
## 54 norm\_condition3:egoistic\_center 0.7197826  
## 55 framing\_conditionFrameCode2:egoistic\_center 0.7234399  
## 56 framing\_conditionFrameCode1:norm\_condition2:egoistic\_center 0.7335276  
## 57 Gender1 0.7396957  
## 58 framing\_conditionFrameCode2:norm\_condition3:egoistic\_center 0.7447832  
## 59 norm\_condition2:egoistic\_center 0.7492989  
## 60 self\_dec\_center 0.7531584  
## 61 framing\_conditionFrameCode2:norm\_condition1:egoistic\_center 0.7542961  
## 62 framing\_conditionFrameCode2:norm\_condition2:egoistic\_center 0.7654119  
## 63 clothing\_center 0.7705199  
## 64 impress\_manag\_center 0.7928780  
## 65 Age\_center 0.7996507  
## 66 framing\_conditionFrameCode1:norm\_condition3:ingroup\_center 0.8410817  
## 67 framing\_conditionFrameCode1:norm\_condition2:ingroup\_center 0.8540036  
## 68 ingroup\_center 0.8615998  
## 69 framing\_conditionFrameCode1:ingroup\_center 0.8650758  
## 70 norm\_condition2:ingroup\_center 0.8655485  
## 71 norm\_condition3:ingroup\_center 0.8666936  
## 72 framing\_conditionFrameCode1:norm\_condition1:ingroup\_center 0.8692387  
## 73 framing\_conditionFrameCode1:norm\_condition4 0.8729757  
## 74 norm\_condition1:ingroup\_center 0.8766885  
## 75 framing\_conditionFrameCode2:norm\_condition1:ingroup\_center 0.8818093  
## 76 framing\_conditionFrameCode2:norm\_condition3:ingroup\_center 0.8880981  
## 77 framing\_conditionFrameCode2:norm\_condition2:ingroup\_center 0.8886454  
## 78 framing\_conditionFrameCode2:ingroup\_center 0.8930299  
## 79 norm\_condition4:ingroup\_center 0.8987498  
## 80 norm\_condition4 0.9007280  
## 81 framing\_conditionFrameCode1:norm\_condition4:ingroup\_center 0.9026861  
## 82 framing\_conditionFrameCode1 0.9036350  
## 83 framing\_conditionFrameCode1:norm\_condition2 0.9049463  
## 84 framing\_conditionFrameCode2:norm\_condition4:ingroup\_center 0.9116427  
## 85 norm\_condition2 0.9190615  
## 86 framing\_conditionFrameCode1:norm\_condition3 0.9222448  
## 87 framing\_conditionFrameCode1:norm\_condition1 0.9262370  
## 88 framing\_conditionFrameCode2 0.9275000  
## 89 norm\_condition3 0.9282968  
## 90 framing\_conditionFrameCode2:norm\_condition4 0.9316181  
## 91 framing\_conditionFrameCode2:norm\_condition2 0.9325473  
## 92 framing\_conditionFrameCode2:norm\_condition1 0.9330598  
## 93 framing\_conditionFrameCode2:norm\_condition3 0.9351637  
## 94 norm\_condition1 0.9368673  
## VIF  
## 1 3.587755  
## 2 2.968442  
## 3 2.770952  
## 4 2.666703  
## 5 2.532288  
## 6 2.439939  
## 7 2.401081  
## 8 2.399478  
## 9 2.312145  
## 10 2.258331  
## 11 2.246645  
## 12 2.231994  
## 13 2.211073  
## 14 2.194475  
## 15 2.188527  
## 16 2.125590  
## 17 2.089281  
## 18 2.071320  
## 19 2.069038  
## 20 2.053009  
## 21 2.044867  
## 22 2.013776  
## 23 2.006965  
## 24 1.994693  
## 25 1.941932  
## 26 1.916101  
## 27 1.912251  
## 28 1.910294  
## 29 1.879935  
## 30 1.864897  
## 31 1.824332  
## 32 1.818004  
## 33 1.809440  
## 34 1.807011  
## 35 1.774386  
## 36 1.768893  
## 37 1.729011  
## 38 1.709161  
## 39 1.683887  
## 40 1.651313  
## 41 1.649490  
## 42 1.641046  
## 43 1.628796  
## 44 1.569019  
## 45 1.554216  
## 46 1.549599  
## 47 1.537236  
## 48 1.530872  
## 49 1.509801  
## 50 1.444781  
## 51 1.443134  
## 52 1.422837  
## 53 1.390197  
## 54 1.389308  
## 55 1.382285  
## 56 1.363275  
## 57 1.351907  
## 58 1.342673  
## 59 1.334581  
## 60 1.327742  
## 61 1.325739  
## 62 1.306486  
## 63 1.297825  
## 64 1.261228  
## 65 1.250546  
## 66 1.188945  
## 67 1.170955  
## 68 1.160632  
## 69 1.155968  
## 70 1.155337  
## 71 1.153810  
## 72 1.150432  
## 73 1.145507  
## 74 1.140656  
## 75 1.134032  
## 76 1.126002  
## 77 1.125308  
## 78 1.119783  
## 79 1.112657  
## 80 1.110213  
## 81 1.107805  
## 82 1.106642  
## 83 1.105038  
## 84 1.096921  
## 85 1.088066  
## 86 1.084311  
## 87 1.079637  
## 88 1.078167  
## 89 1.077242  
## 90 1.073401  
## 91 1.072332  
## 92 1.071743  
## 93 1.069331  
## 94 1.067387

Either a *low* tolerance (below 0.20 is one rule of thumb) or a *high* VIF (above 5 or 10) is an indication of a problem with multicollinearity.

## Imputed Data 5

### Regression summary

Succinct summary

|  | Estimate | Std. Error | t value | Pr(>|t|) |
| --- | --- | --- | --- | --- |
| (Intercept) | 4.39 | 0.03 | 128.33 | 0.000 |
| framing\_conditionFrameCode1 | 0.03 | 0.08 | 0.38 | 0.702 |
| framing\_conditionFrameCode2 | 0.13 | 0.07 | 1.90 | 0.057 |
| norm\_condition1 | -0.02 | 0.05 | -0.35 | 0.729 |
| norm\_condition2 | 0.03 | 0.03 | 0.98 | 0.330 |
| norm\_condition3 | -0.04 | 0.02 | -1.91 | 0.057 |
| norm\_condition4 | -0.02 | 0.02 | -0.91 | 0.363 |
| biospheric\_center | 0.36 | 0.05 | 7.85 | 0.000 |
| altruistic\_center | 0.08 | 0.06 | 1.19 | 0.234 |
| egoistic\_center | -0.30 | 0.04 | -6.95 | 0.000 |
| hedonic\_center | -0.10 | 0.05 | -1.79 | 0.073 |
| ingroup\_center | 0.03 | 0.03 | 0.97 | 0.333 |
| self\_dec\_center | -0.11 | 0.04 | -2.67 | 0.008 |
| impress\_manag\_center | -0.02 | 0.04 | -0.41 | 0.679 |
| clothing\_center | 0.00 | 0.05 | 0.10 | 0.924 |
| Gender1 | 0.16 | 0.08 | 2.08 | 0.038 |
| Age\_center | -0.03 | 0.02 | -1.67 | 0.095 |
| framing\_conditionFrameCode1:norm\_condition1 | 0.20 | 0.13 | 1.59 | 0.111 |
| framing\_conditionFrameCode2:norm\_condition1 | -0.10 | 0.11 | -0.90 | 0.368 |
| framing\_conditionFrameCode1:norm\_condition2 | 0.00 | 0.08 | -0.01 | 0.993 |
| framing\_conditionFrameCode2:norm\_condition2 | -0.04 | 0.06 | -0.63 | 0.527 |
| framing\_conditionFrameCode1:norm\_condition3 | 0.02 | 0.05 | 0.42 | 0.674 |
| framing\_conditionFrameCode2:norm\_condition3 | 0.02 | 0.05 | 0.45 | 0.654 |
| framing\_conditionFrameCode1:norm\_condition4 | 0.03 | 0.04 | 0.61 | 0.539 |
| framing\_conditionFrameCode2:norm\_condition4 | -0.01 | 0.03 | -0.40 | 0.688 |
| framing\_conditionFrameCode1:biospheric\_center | -0.02 | 0.12 | -0.20 | 0.842 |
| framing\_conditionFrameCode2:biospheric\_center | 0.06 | 0.09 | 0.64 | 0.520 |
| norm\_condition1:biospheric\_center | -0.06 | 0.07 | -0.86 | 0.388 |
| norm\_condition2:biospheric\_center | 0.08 | 0.04 | 1.91 | 0.056 |
| norm\_condition3:biospheric\_center | -0.05 | 0.03 | -1.70 | 0.089 |
| norm\_condition4:biospheric\_center | -0.04 | 0.02 | -1.60 | 0.110 |
| framing\_conditionFrameCode1:altruistic\_center | 0.01 | 0.16 | 0.09 | 0.930 |
| framing\_conditionFrameCode2:altruistic\_center | -0.12 | 0.13 | -0.99 | 0.323 |
| norm\_condition1:altruistic\_center | -0.11 | 0.10 | -1.11 | 0.267 |
| norm\_condition2:altruistic\_center | -0.01 | 0.06 | -0.24 | 0.811 |
| norm\_condition3:altruistic\_center | 0.03 | 0.04 | 0.65 | 0.517 |
| norm\_condition4:altruistic\_center | 0.07 | 0.03 | 2.28 | 0.023 |
| framing\_conditionFrameCode1:egoistic\_center | -0.04 | 0.10 | -0.40 | 0.687 |
| framing\_conditionFrameCode2:egoistic\_center | 0.05 | 0.09 | 0.57 | 0.567 |
| norm\_condition1:egoistic\_center | 0.05 | 0.07 | 0.72 | 0.472 |
| norm\_condition2:egoistic\_center | -0.02 | 0.04 | -0.55 | 0.583 |
| norm\_condition3:egoistic\_center | 0.02 | 0.03 | 0.66 | 0.508 |
| norm\_condition4:egoistic\_center | 0.01 | 0.02 | 0.68 | 0.499 |
| framing\_conditionFrameCode1:hedonic\_center | 0.00 | 0.13 | -0.03 | 0.977 |
| framing\_conditionFrameCode2:hedonic\_center | 0.16 | 0.11 | 1.41 | 0.159 |
| norm\_condition1:hedonic\_center | 0.00 | 0.09 | -0.02 | 0.986 |
| norm\_condition2:hedonic\_center | 0.07 | 0.05 | 1.35 | 0.177 |
| norm\_condition3:hedonic\_center | -0.04 | 0.04 | -1.26 | 0.207 |
| norm\_condition4:hedonic\_center | -0.05 | 0.03 | -1.87 | 0.062 |
| framing\_conditionFrameCode1:ingroup\_center | 0.03 | 0.08 | 0.32 | 0.751 |
| framing\_conditionFrameCode2:ingroup\_center | -0.06 | 0.07 | -0.86 | 0.390 |
| norm\_condition1:ingroup\_center | 0.01 | 0.05 | 0.21 | 0.831 |
| norm\_condition2:ingroup\_center | -0.01 | 0.03 | -0.43 | 0.665 |
| norm\_condition3:ingroup\_center | 0.00 | 0.02 | 0.17 | 0.866 |
| norm\_condition4:ingroup\_center | -0.01 | 0.02 | -0.89 | 0.374 |
| framing\_conditionFrameCode1:norm\_condition1:biospheric\_center | -0.02 | 0.18 | -0.10 | 0.917 |
| framing\_conditionFrameCode2:norm\_condition1:biospheric\_center | 0.02 | 0.14 | 0.13 | 0.899 |
| framing\_conditionFrameCode1:norm\_condition2:biospheric\_center | -0.13 | 0.11 | -1.25 | 0.212 |
| framing\_conditionFrameCode2:norm\_condition2:biospheric\_center | 0.11 | 0.08 | 1.32 | 0.186 |
| framing\_conditionFrameCode1:norm\_condition3:biospheric\_center | 0.15 | 0.07 | 1.98 | 0.048 |
| framing\_conditionFrameCode2:norm\_condition3:biospheric\_center | 0.07 | 0.06 | 1.15 | 0.249 |
| framing\_conditionFrameCode1:norm\_condition4:biospheric\_center | 0.07 | 0.07 | 1.09 | 0.277 |
| framing\_conditionFrameCode2:norm\_condition4:biospheric\_center | 0.11 | 0.05 | 2.33 | 0.020 |
| framing\_conditionFrameCode1:norm\_condition1:altruistic\_center | -0.05 | 0.25 | -0.20 | 0.841 |
| framing\_conditionFrameCode2:norm\_condition1:altruistic\_center | 0.19 | 0.21 | 0.91 | 0.365 |
| framing\_conditionFrameCode1:norm\_condition2:altruistic\_center | 0.25 | 0.14 | 1.82 | 0.068 |
| framing\_conditionFrameCode2:norm\_condition2:altruistic\_center | 0.00 | 0.11 | -0.01 | 0.994 |
| framing\_conditionFrameCode1:norm\_condition3:altruistic\_center | -0.15 | 0.11 | -1.38 | 0.169 |
| framing\_conditionFrameCode2:norm\_condition3:altruistic\_center | -0.06 | 0.08 | -0.72 | 0.470 |
| framing\_conditionFrameCode1:norm\_condition4:altruistic\_center | -0.02 | 0.08 | -0.23 | 0.821 |
| framing\_conditionFrameCode2:norm\_condition4:altruistic\_center | -0.08 | 0.06 | -1.45 | 0.147 |
| framing\_conditionFrameCode1:norm\_condition1:egoistic\_center | 0.06 | 0.18 | 0.31 | 0.754 |
| framing\_conditionFrameCode2:norm\_condition1:egoistic\_center | 0.13 | 0.14 | 0.92 | 0.360 |
| framing\_conditionFrameCode1:norm\_condition2:egoistic\_center | -0.02 | 0.09 | -0.22 | 0.827 |
| framing\_conditionFrameCode2:norm\_condition2:egoistic\_center | 0.17 | 0.08 | 2.12 | 0.034 |
| framing\_conditionFrameCode1:norm\_condition3:egoistic\_center | 0.08 | 0.06 | 1.21 | 0.225 |
| framing\_conditionFrameCode2:norm\_condition3:egoistic\_center | 0.02 | 0.06 | 0.45 | 0.656 |
| framing\_conditionFrameCode1:norm\_condition4:egoistic\_center | -0.06 | 0.05 | -1.21 | 0.227 |
| framing\_conditionFrameCode2:norm\_condition4:egoistic\_center | -0.04 | 0.04 | -0.89 | 0.375 |
| framing\_conditionFrameCode1:norm\_condition1:hedonic\_center | -0.08 | 0.22 | -0.38 | 0.706 |
| framing\_conditionFrameCode2:norm\_condition1:hedonic\_center | -0.19 | 0.19 | -0.99 | 0.320 |
| framing\_conditionFrameCode1:norm\_condition2:hedonic\_center | -0.13 | 0.12 | -1.08 | 0.281 |
| framing\_conditionFrameCode2:norm\_condition2:hedonic\_center | -0.01 | 0.10 | -0.05 | 0.960 |
| framing\_conditionFrameCode1:norm\_condition3:hedonic\_center | -0.11 | 0.09 | -1.21 | 0.228 |
| framing\_conditionFrameCode2:norm\_condition3:hedonic\_center | 0.00 | 0.07 | 0.00 | 0.996 |
| framing\_conditionFrameCode1:norm\_condition4:hedonic\_center | -0.01 | 0.06 | -0.14 | 0.890 |
| framing\_conditionFrameCode2:norm\_condition4:hedonic\_center | 0.04 | 0.05 | 0.73 | 0.468 |
| framing\_conditionFrameCode1:norm\_condition1:ingroup\_center | 0.19 | 0.13 | 1.45 | 0.149 |
| framing\_conditionFrameCode2:norm\_condition1:ingroup\_center | 0.04 | 0.11 | 0.32 | 0.752 |
| framing\_conditionFrameCode1:norm\_condition2:ingroup\_center | 0.12 | 0.08 | 1.56 | 0.120 |
| framing\_conditionFrameCode2:norm\_condition2:ingroup\_center | -0.03 | 0.06 | -0.50 | 0.619 |
| framing\_conditionFrameCode1:norm\_condition3:ingroup\_center | 0.03 | 0.05 | 0.63 | 0.532 |
| framing\_conditionFrameCode2:norm\_condition3:ingroup\_center | -0.03 | 0.05 | -0.61 | 0.539 |
| framing\_conditionFrameCode1:norm\_condition4:ingroup\_center | -0.09 | 0.04 | -2.15 | 0.031 |
| framing\_conditionFrameCode2:norm\_condition4:ingroup\_center | 0.04 | 0.04 | 1.12 | 0.262 |

APA style table for regression summary

apa\_summ\_imp5 <- apa\_print(summary\_imp5)  
  
apa\_summ\_imp5$table %>%  
apa\_table(caption = "Table 6 Regression Results Using Imputed Data 5",  
 note = "DV = Consumer Intentions")

(#tab:unnamed-chunk-97)

*Table 6 Regression Results Using Imputed Data 5*

| Predictor |  | 95% CI |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Intercept | 4.39 | [4.32, 4.45] | 128.33 | 1038 | < .001 |
| Framing conditionFrameCode1 | 0.03 | [-0.13, 0.19] | 0.38 | 1038 | .702 |
| Framing conditionFrameCode2 | 0.13 | [0.00, 0.27] | 1.90 | 1038 | .057 |
| Norm condition1 | -0.02 | [-0.12, 0.08] | -0.35 | 1038 | .729 |
| Norm condition2 | 0.03 | [-0.03, 0.09] | 0.98 | 1038 | .330 |
| Norm condition3 | -0.04 | [-0.08, 0.00] | -1.91 | 1038 | .057 |
| Norm condition4 | -0.02 | [-0.05, 0.02] | -0.91 | 1038 | .363 |
| Biospheric center | 0.36 | [0.27, 0.45] | 7.85 | 1038 | < .001 |
| Altruistic center | 0.08 | [-0.05, 0.20] | 1.19 | 1038 | .234 |
| Egoistic center | -0.30 | [-0.38, -0.21] | -6.95 | 1038 | < .001 |
| Hedonic center | -0.10 | [-0.20, 0.01] | -1.79 | 1038 | .073 |
| Ingroup center | 0.03 | [-0.03, 0.10] | 0.97 | 1038 | .333 |
| Self dec center | -0.11 | [-0.20, -0.03] | -2.67 | 1038 | .008 |
| Impress manag center | -0.02 | [-0.10, 0.07] | -0.41 | 1038 | .679 |
| Clothing center | 0.00 | [-0.08, 0.09] | 0.10 | 1038 | .924 |
| Gender1 | 0.16 | [0.01, 0.30] | 2.08 | 1038 | .038 |
| Age center | -0.03 | [-0.07, 0.01] | -1.67 | 1038 | .095 |
| Framing conditionFrameCode1 Norm condition1 | 0.20 | [-0.05, 0.45] | 1.59 | 1038 | .111 |
| Framing conditionFrameCode2 Norm condition1 | -0.10 | [-0.32, 0.12] | -0.90 | 1038 | .368 |
| Framing conditionFrameCode1 Norm condition2 | 0.00 | [-0.15, 0.15] | -0.01 | 1038 | .993 |
| Framing conditionFrameCode2 Norm condition2 | -0.04 | [-0.16, 0.08] | -0.63 | 1038 | .527 |
| Framing conditionFrameCode1 Norm condition3 | 0.02 | [-0.08, 0.12] | 0.42 | 1038 | .674 |
| Framing conditionFrameCode2 Norm condition3 | 0.02 | [-0.07, 0.11] | 0.45 | 1038 | .654 |
| Framing conditionFrameCode1 Norm condition4 | 0.03 | [-0.06, 0.11] | 0.61 | 1038 | .539 |
| Framing conditionFrameCode2 Norm condition4 | -0.01 | [-0.08, 0.05] | -0.40 | 1038 | .688 |
| Framing conditionFrameCode1 Biospheric center | -0.02 | [-0.26, 0.21] | -0.20 | 1038 | .842 |
| Framing conditionFrameCode2 Biospheric center | 0.06 | [-0.12, 0.24] | 0.64 | 1038 | .520 |
| Norm condition1 Biospheric center | -0.06 | [-0.20, 0.08] | -0.86 | 1038 | .388 |
| Norm condition2 Biospheric center | 0.08 | [0.00, 0.16] | 1.91 | 1038 | .056 |
| Norm condition3 Biospheric center | -0.05 | [-0.11, 0.01] | -1.70 | 1038 | .089 |
| Norm condition4 Biospheric center | -0.04 | [-0.09, 0.01] | -1.60 | 1038 | .110 |
| Framing conditionFrameCode1 Altruistic center | 0.01 | [-0.29, 0.32] | 0.09 | 1038 | .930 |
| Framing conditionFrameCode2 Altruistic center | -0.12 | [-0.37, 0.12] | -0.99 | 1038 | .323 |
| Norm condition1 Altruistic center | -0.11 | [-0.31, 0.08] | -1.11 | 1038 | .267 |
| Norm condition2 Altruistic center | -0.01 | [-0.12, 0.10] | -0.24 | 1038 | .811 |
| Norm condition3 Altruistic center | 0.03 | [-0.05, 0.11] | 0.65 | 1038 | .517 |
| Norm condition4 Altruistic center | 0.07 | [0.01, 0.12] | 2.28 | 1038 | .023 |
| Framing conditionFrameCode1 Egoistic center | -0.04 | [-0.24, 0.16] | -0.40 | 1038 | .687 |
| Framing conditionFrameCode2 Egoistic center | 0.05 | [-0.12, 0.22] | 0.57 | 1038 | .567 |
| Norm condition1 Egoistic center | 0.05 | [-0.09, 0.18] | 0.72 | 1038 | .472 |
| Norm condition2 Egoistic center | -0.02 | [-0.09, 0.05] | -0.55 | 1038 | .583 |
| Norm condition3 Egoistic center | 0.02 | [-0.03, 0.07] | 0.66 | 1038 | .508 |
| Norm condition4 Egoistic center | 0.01 | [-0.03, 0.05] | 0.68 | 1038 | .499 |
| Framing conditionFrameCode1 Hedonic center | 0.00 | [-0.26, 0.26] | -0.03 | 1038 | .977 |
| Framing conditionFrameCode2 Hedonic center | 0.16 | [-0.06, 0.38] | 1.41 | 1038 | .159 |
| Norm condition1 Hedonic center | 0.00 | [-0.18, 0.17] | -0.02 | 1038 | .986 |
| Norm condition2 Hedonic center | 0.07 | [-0.03, 0.16] | 1.35 | 1038 | .177 |
| Norm condition3 Hedonic center | -0.04 | [-0.11, 0.02] | -1.26 | 1038 | .207 |
| Norm condition4 Hedonic center | -0.05 | [-0.10, 0.00] | -1.87 | 1038 | .062 |
| Framing conditionFrameCode1 Ingroup center | 0.03 | [-0.14, 0.19] | 0.32 | 1038 | .751 |
| Framing conditionFrameCode2 Ingroup center | -0.06 | [-0.20, 0.08] | -0.86 | 1038 | .390 |
| Norm condition1 Ingroup center | 0.01 | [-0.09, 0.11] | 0.21 | 1038 | .831 |
| Norm condition2 Ingroup center | -0.01 | [-0.07, 0.05] | -0.43 | 1038 | .665 |
| Norm condition3 Ingroup center | 0.00 | [-0.04, 0.05] | 0.17 | 1038 | .866 |
| Norm condition4 Ingroup center | -0.01 | [-0.05, 0.02] | -0.89 | 1038 | .374 |
| Framing conditionFrameCode1 Norm condition1 Biospheric center | -0.02 | [-0.37, 0.33] | -0.10 | 1038 | .917 |
| Framing conditionFrameCode2 Norm condition1 Biospheric center | 0.02 | [-0.26, 0.30] | 0.13 | 1038 | .899 |
| Framing conditionFrameCode1 Norm condition2 Biospheric center | -0.13 | [-0.34, 0.08] | -1.25 | 1038 | .212 |
| Framing conditionFrameCode2 Norm condition2 Biospheric center | 0.11 | [-0.05, 0.28] | 1.32 | 1038 | .186 |
| Framing conditionFrameCode1 Norm condition3 Biospheric center | 0.15 | [0.00, 0.30] | 1.98 | 1038 | .048 |
| Framing conditionFrameCode2 Norm condition3 Biospheric center | 0.07 | [-0.05, 0.18] | 1.15 | 1038 | .249 |
| Framing conditionFrameCode1 Norm condition4 Biospheric center | 0.07 | [-0.06, 0.20] | 1.09 | 1038 | .277 |
| Framing conditionFrameCode2 Norm condition4 Biospheric center | 0.11 | [0.02, 0.20] | 2.33 | 1038 | .020 |
| Framing conditionFrameCode1 Norm condition1 Altruistic center | -0.05 | [-0.54, 0.44] | -0.20 | 1038 | .841 |
| Framing conditionFrameCode2 Norm condition1 Altruistic center | 0.19 | [-0.22, 0.60] | 0.91 | 1038 | .365 |
| Framing conditionFrameCode1 Norm condition2 Altruistic center | 0.25 | [-0.02, 0.53] | 1.82 | 1038 | .068 |
| Framing conditionFrameCode2 Norm condition2 Altruistic center | 0.00 | [-0.22, 0.22] | -0.01 | 1038 | .994 |
| Framing conditionFrameCode1 Norm condition3 Altruistic center | -0.15 | [-0.35, 0.06] | -1.38 | 1038 | .169 |
| Framing conditionFrameCode2 Norm condition3 Altruistic center | -0.06 | [-0.23, 0.11] | -0.72 | 1038 | .470 |
| Framing conditionFrameCode1 Norm condition4 Altruistic center | -0.02 | [-0.17, 0.13] | -0.23 | 1038 | .821 |
| Framing conditionFrameCode2 Norm condition4 Altruistic center | -0.08 | [-0.20, 0.03] | -1.45 | 1038 | .147 |
| Framing conditionFrameCode1 Norm condition1 Egoistic center | 0.06 | [-0.29, 0.40] | 0.31 | 1038 | .754 |
| Framing conditionFrameCode2 Norm condition1 Egoistic center | 0.13 | [-0.14, 0.40] | 0.92 | 1038 | .360 |
| Framing conditionFrameCode1 Norm condition2 Egoistic center | -0.02 | [-0.19, 0.15] | -0.22 | 1038 | .827 |
| Framing conditionFrameCode2 Norm condition2 Egoistic center | 0.17 | [0.01, 0.32] | 2.12 | 1038 | .034 |
| Framing conditionFrameCode1 Norm condition3 Egoistic center | 0.08 | [-0.05, 0.20] | 1.21 | 1038 | .225 |
| Framing conditionFrameCode2 Norm condition3 Egoistic center | 0.02 | [-0.08, 0.13] | 0.45 | 1038 | .656 |
| Framing conditionFrameCode1 Norm condition4 Egoistic center | -0.06 | [-0.17, 0.04] | -1.21 | 1038 | .227 |
| Framing conditionFrameCode2 Norm condition4 Egoistic center | -0.04 | [-0.12, 0.05] | -0.89 | 1038 | .375 |
| Framing conditionFrameCode1 Norm condition1 Hedonic center | -0.08 | [-0.52, 0.35] | -0.38 | 1038 | .706 |
| Framing conditionFrameCode2 Norm condition1 Hedonic center | -0.19 | [-0.56, 0.18] | -0.99 | 1038 | .320 |
| Framing conditionFrameCode1 Norm condition2 Hedonic center | -0.13 | [-0.36, 0.10] | -1.08 | 1038 | .281 |
| Framing conditionFrameCode2 Norm condition2 Hedonic center | -0.01 | [-0.21, 0.20] | -0.05 | 1038 | .960 |
| Framing conditionFrameCode1 Norm condition3 Hedonic center | -0.11 | [-0.28, 0.07] | -1.21 | 1038 | .228 |
| Framing conditionFrameCode2 Norm condition3 Hedonic center | 0.00 | [-0.14, 0.14] | 0.00 | 1038 | .996 |
| Framing conditionFrameCode1 Norm condition4 Hedonic center | -0.01 | [-0.13, 0.11] | -0.14 | 1038 | .890 |
| Framing conditionFrameCode2 Norm condition4 Hedonic center | 0.04 | [-0.06, 0.14] | 0.73 | 1038 | .468 |
| Framing conditionFrameCode1 Norm condition1 Ingroup center | 0.19 | [-0.07, 0.44] | 1.45 | 1038 | .149 |
| Framing conditionFrameCode2 Norm condition1 Ingroup center | 0.04 | [-0.19, 0.26] | 0.32 | 1038 | .752 |
| Framing conditionFrameCode1 Norm condition2 Ingroup center | 0.12 | [-0.03, 0.27] | 1.56 | 1038 | .120 |
| Framing conditionFrameCode2 Norm condition2 Ingroup center | -0.03 | [-0.16, 0.10] | -0.50 | 1038 | .619 |
| Framing conditionFrameCode1 Norm condition3 Ingroup center | 0.03 | [-0.07, 0.14] | 0.63 | 1038 | .532 |
| Framing conditionFrameCode2 Norm condition3 Ingroup center | -0.03 | [-0.12, 0.06] | -0.61 | 1038 | .539 |
| Framing conditionFrameCode1 Norm condition4 Ingroup center | -0.09 | [-0.16, -0.01] | -2.15 | 1038 | .031 |
| Framing conditionFrameCode2 Norm condition4 Ingroup center | 0.04 | [-0.03, 0.11] | 1.12 | 1038 | .262 |

*Note.* DV = Consumer Intentions

Standardized regression coefficients

APA summary of standardized coefficients

### ANOVA summary

Anova(mod\_mice\_imp5, type = 3) %>%  
 knitr::kable(digits = c(2, 2, 2, 3))

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18899.61 | 1 | 16469.29 | 0.000 |
| framing\_condition | 4.31 | 2 | 1.88 | 0.153 |
| norm\_condition | 6.34 | 4 | 1.38 | 0.239 |
| biospheric\_center | 70.75 | 1 | 61.66 | 0.000 |
| altruistic\_center | 1.63 | 1 | 1.42 | 0.234 |
| egoistic\_center | 55.36 | 1 | 48.24 | 0.000 |
| hedonic\_center | 3.70 | 1 | 3.22 | 0.073 |
| ingroup\_center | 1.08 | 1 | 0.94 | 0.333 |
| self\_dec\_center | 8.18 | 1 | 7.13 | 0.008 |
| impress\_manag\_center | 0.20 | 1 | 0.17 | 0.679 |
| clothing\_center | 0.01 | 1 | 0.01 | 0.924 |
| Gender | 4.95 | 1 | 4.31 | 0.038 |
| Age\_center | 3.21 | 1 | 2.80 | 0.095 |
| framing\_condition:norm\_condition | 5.44 | 8 | 0.59 | 0.785 |
| framing\_condition:biospheric\_center | 0.52 | 2 | 0.23 | 0.797 |
| norm\_condition:biospheric\_center | 11.13 | 4 | 2.43 | 0.046 |
| framing\_condition:altruistic\_center | 1.12 | 2 | 0.49 | 0.613 |
| norm\_condition:altruistic\_center | 8.32 | 4 | 1.81 | 0.124 |
| framing\_condition:egoistic\_center | 0.56 | 2 | 0.24 | 0.784 |
| norm\_condition:egoistic\_center | 2.10 | 4 | 0.46 | 0.767 |
| framing\_condition:hedonic\_center | 2.28 | 2 | 1.00 | 0.370 |
| norm\_condition:hedonic\_center | 8.39 | 4 | 1.83 | 0.121 |
| framing\_condition:ingroup\_center | 0.95 | 2 | 0.41 | 0.662 |
| norm\_condition:ingroup\_center | 1.20 | 4 | 0.26 | 0.903 |
| framing\_condition:norm\_condition:biospheric\_center | 17.32 | 8 | 1.89 | 0.059 |
| framing\_condition:norm\_condition:altruistic\_center | 10.76 | 8 | 1.17 | 0.312 |
| framing\_condition:norm\_condition:egoistic\_center | 11.39 | 8 | 1.24 | 0.272 |
| framing\_condition:norm\_condition:hedonic\_center | 5.15 | 8 | 0.56 | 0.810 |
| framing\_condition:norm\_condition:ingroup\_center | 12.63 | 8 | 1.38 | 0.203 |
| Residuals | 1191.17 | 1038 | NA | NA |

### Effect Size

etaSquared(mod\_mice\_imp5, type = 3, anova = TRUE) %>%   
 knitr::kable(digits = 3)

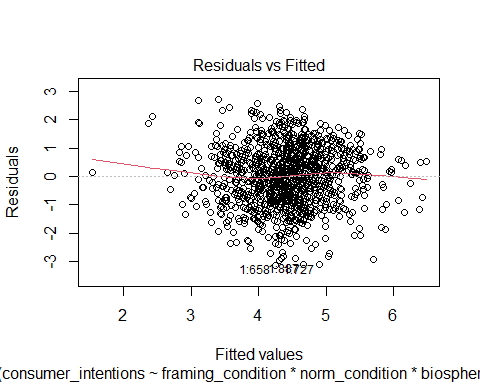
|  | eta.sq | eta.sq.part | SS | df | MS | F | p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| framing\_condition | 0.003 | 0.004 | 4.315 | 2 | 2.157 | 1.880 | 0.153 |
| norm\_condition | 0.004 | 0.005 | 6.336 | 4 | 1.584 | 1.380 | 0.239 |
| biospheric\_center | 0.044 | 0.056 | 70.755 | 1 | 70.755 | 61.656 | 0.000 |
| altruistic\_center | 0.001 | 0.001 | 1.628 | 1 | 1.628 | 1.418 | 0.234 |
| egoistic\_center | 0.035 | 0.044 | 55.364 | 1 | 55.364 | 48.244 | 0.000 |
| hedonic\_center | 0.002 | 0.003 | 3.695 | 1 | 3.695 | 3.220 | 0.073 |
| ingroup\_center | 0.001 | 0.001 | 1.076 | 1 | 1.076 | 0.937 | 0.333 |
| self\_dec\_center | 0.005 | 0.007 | 8.179 | 1 | 8.179 | 7.127 | 0.008 |
| impress\_manag\_center | 0.000 | 0.000 | 0.197 | 1 | 0.197 | 0.171 | 0.679 |
| clothing\_center | 0.000 | 0.000 | 0.010 | 1 | 0.010 | 0.009 | 0.924 |
| Gender | 0.003 | 0.004 | 4.946 | 1 | 4.946 | 4.310 | 0.038 |
| Age\_center | 0.002 | 0.003 | 3.208 | 1 | 3.208 | 2.796 | 0.095 |
| framing\_condition:norm\_condition | 0.003 | 0.005 | 5.441 | 8 | 0.680 | 0.593 | 0.785 |
| framing\_condition:biospheric\_center | 0.000 | 0.000 | 0.521 | 2 | 0.260 | 0.227 | 0.797 |
| norm\_condition:biospheric\_center | 0.007 | 0.009 | 11.133 | 4 | 2.783 | 2.425 | 0.046 |
| framing\_condition:altruistic\_center | 0.001 | 0.001 | 1.124 | 2 | 0.562 | 0.490 | 0.613 |
| norm\_condition:altruistic\_center | 0.005 | 0.007 | 8.325 | 4 | 2.081 | 1.814 | 0.124 |
| framing\_condition:egoistic\_center | 0.000 | 0.000 | 0.559 | 2 | 0.280 | 0.244 | 0.784 |
| norm\_condition:egoistic\_center | 0.001 | 0.002 | 2.097 | 4 | 0.524 | 0.457 | 0.767 |
| framing\_condition:hedonic\_center | 0.001 | 0.002 | 2.284 | 2 | 1.142 | 0.995 | 0.370 |
| norm\_condition:hedonic\_center | 0.005 | 0.007 | 8.390 | 4 | 2.098 | 1.828 | 0.121 |
| framing\_condition:ingroup\_center | 0.001 | 0.001 | 0.948 | 2 | 0.474 | 0.413 | 0.662 |
| norm\_condition:ingroup\_center | 0.001 | 0.001 | 1.199 | 4 | 0.300 | 0.261 | 0.903 |
| framing\_condition:norm\_condition:biospheric\_center | 0.011 | 0.014 | 17.324 | 8 | 2.165 | 1.887 | 0.059 |
| framing\_condition:norm\_condition:altruistic\_center | 0.007 | 0.009 | 10.764 | 8 | 1.346 | 1.173 | 0.312 |
| framing\_condition:norm\_condition:egoistic\_center | 0.007 | 0.009 | 11.386 | 8 | 1.423 | 1.240 | 0.272 |
| framing\_condition:norm\_condition:hedonic\_center | 0.003 | 0.004 | 5.155 | 8 | 0.644 | 0.561 | 0.810 |
| framing\_condition:norm\_condition:ingroup\_center | 0.008 | 0.010 | 12.631 | 8 | 1.579 | 1.376 | 0.203 |
| Residuals | 0.745 | NA | 1191.174 | 1038 | 1.148 | NA | NA |

### Regression Diagnostics

#### Checking non-linearity

First, assess non-linearity using a residuals plots:

plot(mod\_mice\_imp5, 1)

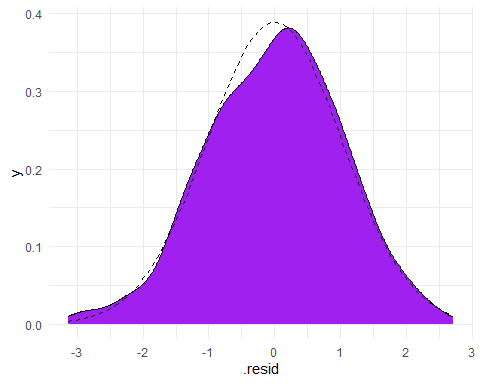


There does not appear to be a systematic pattern suggesting an uncaptured, non-linear trend.

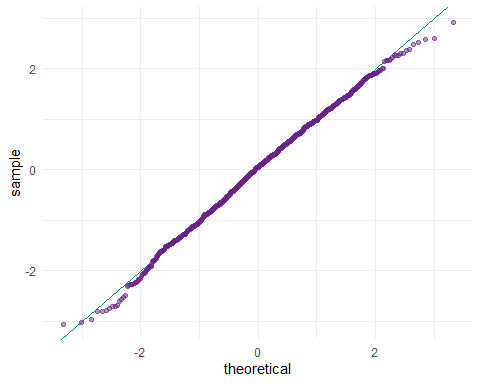
#### Checking non-normally distributed errors

Second, assess non-normally distributed errors by plotting the residuals & using a QQ-plot:

# storing residuals  
store\_residuals <- augment(mod\_mice\_imp5)  
  
# plotting histogram of residuals  
ggplot(data = store\_residuals, aes(x = .resid)) +   
 geom\_density(fill = "purple") +   
 stat\_function(linetype = 2,   
 fun = dnorm,   
 args = list(mean = mean(store\_residuals$.resid),   
 sd = sd(store\_residuals$.resid))) +  
 theme\_minimal()



# QQ-plot  
ggplot(mod\_mice\_imp5) +  
 geom\_abline(color = "turquoise4") +   
 stat\_qq(aes(sample = .stdresid), color = "darkorchid4", alpha = .50) +  
 theme\_minimal()

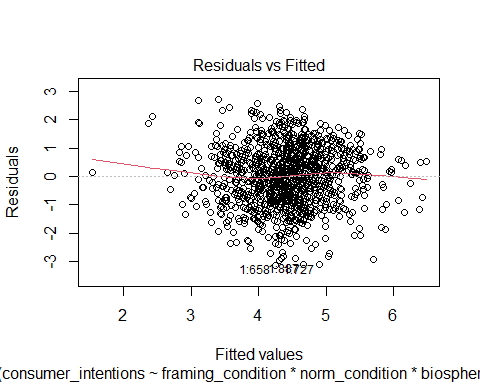


The distribution of residuals & QQ-plot suggest approximately normally distributed residuals.

#### Checking heteroscedasticity

Third, check for heteroscedasticity by looking at spread of residuals on residuals plot:

plot(mod\_mice\_imp5, 1)

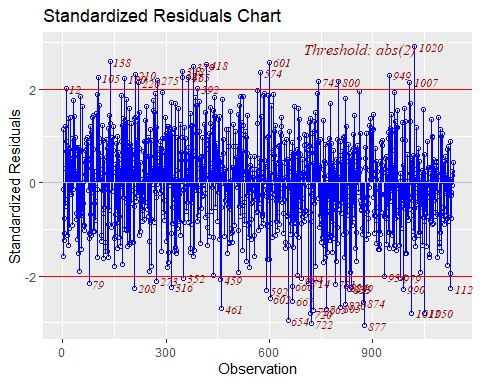


The spread of the residuals appears to be approximately the same across the range of fitted values.

#### Checking multivariate outliers

Outliers based on distance from model using standardized residuals:

# using olsrr function  
ols\_plot\_resid\_stand(mod\_mice\_imp5)



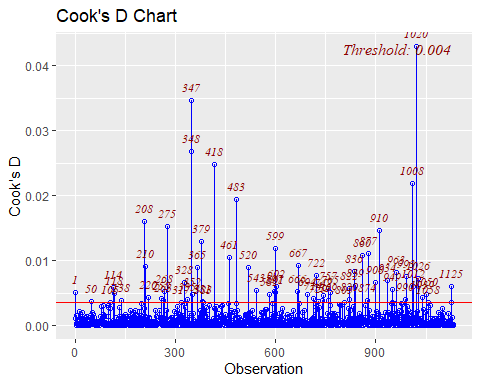
# or grabbing from model augment output  
model\_aug <- augment(mod\_mice\_imp5)  
  
model\_aug$id <- mod\_mice\_imp5$.rownames  
  
std\_resids <- model\_aug %>%   
 dplyr::select(.rownames, .std.resid) %>%  
 arrange(desc(abs(.std.resid)))  
  
print(std\_resids, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .std.resid  
## <chr> <dbl>  
## 1 1:887 -3.06  
## 2 1:727 -3.02  
## 3 1:658 -2.96  
## 4 1:1034 2.92  
## 5 1:725 -2.81  
## 6 1:1026 -2.80  
## 7 1:1064 -2.80  
## 8 1:734 -2.75  
## 9 1:771 -2.71  
## 10 1:465 -2.70  
## 11 1:813 -2.68  
## 12 1:828 -2.61  
## 13 1:140 2.60  
## 14 1:605 2.58  
## 15 1:884 -2.58  
## # ℹ 1,118 more rows

Examine outliers with standardized residuals greater than +/-2 or +/-3.

Outliers based on influence on model using Cook’s Distance:

# using olsrr function  
ols\_plot\_cooksd\_chart(mod\_mice\_imp5)



# or grabbing from model augment output  
cooks\_d <- model\_aug %>%   
 dplyr::select(.rownames, .cooksd) %>%  
 arrange(desc(abs(.cooksd)))  
  
print(cooks\_d, n = 15)

## # A tibble: 1,133 × 2  
## .rownames .cooksd  
## <chr> <dbl>  
## 1 1:1034 0.0429   
## 2 1:351 0.0345   
## 3 1:352 0.0267   
## 4 1:422 0.0248   
## 5 1:1022 0.0219   
## 6 1:487 0.0194   
## 7 1:211 0.0160   
## 8 1:278 0.0152   
## 9 1:921 0.0147   
## 10 1:383 0.0129   
## 11 1:603 0.0118   
## 12 1:887 0.0111   
## 13 1:870 0.0108   
## 14 1:465 0.0104   
## 15 1:671 0.00923  
## # ℹ 1,118 more rows

One standard is that Cook’s D values greater than 3 times the average Cook’s D values are worth investigating.

#### Checking multicollinearity

Using VIFs & tolerance:

ols\_vif\_tol(mod\_mice\_imp5) %>%  
 arrange(desc(abs(VIF)))

## Variables Tolerance  
## 1 framing\_conditionFrameCode1:norm\_condition4:altruistic\_center 0.2752342  
## 2 framing\_conditionFrameCode1:norm\_condition4:biospheric\_center 0.3318067  
## 3 norm\_condition4:altruistic\_center 0.3343941  
## 4 framing\_conditionFrameCode1:altruistic\_center 0.3674702  
## 5 norm\_condition4:biospheric\_center 0.3877706  
## 6 altruistic\_center 0.3883504  
## 7 framing\_conditionFrameCode1:norm\_condition1:altruistic\_center 0.4046573  
## 8 framing\_conditionFrameCode1:norm\_condition2:altruistic\_center 0.4074952  
## 9 framing\_conditionFrameCode2:norm\_condition4:altruistic\_center 0.4156463  
## 10 framing\_conditionFrameCode1:biospheric\_center 0.4343846  
## 11 framing\_conditionFrameCode1:norm\_condition4:hedonic\_center 0.4348815  
## 12 norm\_condition1:altruistic\_center 0.4362460  
## 13 framing\_conditionFrameCode1:norm\_condition2:biospheric\_center 0.4471413  
## 14 norm\_condition2:altruistic\_center 0.4498356  
## 15 framing\_conditionFrameCode1:norm\_condition3:altruistic\_center 0.4519815  
## 16 framing\_conditionFrameCode2:altruistic\_center 0.4656362  
## 17 framing\_conditionFrameCode2:norm\_condition4:biospheric\_center 0.4708202  
## 18 biospheric\_center 0.4730961  
## 19 framing\_conditionFrameCode2:norm\_condition1:altruistic\_center 0.4786922  
## 20 norm\_condition3:altruistic\_center 0.4840910  
## 21 norm\_condition4:hedonic\_center 0.4903454  
## 22 framing\_conditionFrameCode1:norm\_condition3:biospheric\_center 0.4931595  
## 23 norm\_condition2:biospheric\_center 0.4943468  
## 24 framing\_conditionFrameCode2:norm\_condition2:altruistic\_center 0.4972681  
## 25 framing\_conditionFrameCode1:norm\_condition1:biospheric\_center 0.5015875  
## 26 norm\_condition1:biospheric\_center 0.5172296  
## 27 framing\_conditionFrameCode1:hedonic\_center 0.5203481  
## 28 norm\_condition3:biospheric\_center 0.5225729  
## 29 framing\_conditionFrameCode2:norm\_condition3:altruistic\_center 0.5243726  
## 30 framing\_conditionFrameCode2:biospheric\_center 0.5298562  
## 31 framing\_conditionFrameCode2:norm\_condition1:biospheric\_center 0.5401985  
## 32 hedonic\_center 0.5492517  
## 33 framing\_conditionFrameCode2:norm\_condition2:biospheric\_center 0.5495508  
## 34 framing\_conditionFrameCode1:norm\_condition1:hedonic\_center 0.5516413  
## 35 framing\_conditionFrameCode2:norm\_condition4:hedonic\_center 0.5605293  
## 36 framing\_conditionFrameCode2:norm\_condition3:biospheric\_center 0.5697172  
## 37 framing\_conditionFrameCode1:norm\_condition3:hedonic\_center 0.5797052  
## 38 norm\_condition1:hedonic\_center 0.5856644  
## 39 framing\_conditionFrameCode1:norm\_condition2:hedonic\_center 0.5951220  
## 40 framing\_conditionFrameCode2:hedonic\_center 0.6040627  
## 41 norm\_condition3:hedonic\_center 0.6077816  
## 42 norm\_condition2:hedonic\_center 0.6101991  
## 43 framing\_conditionFrameCode2:norm\_condition1:hedonic\_center 0.6156854  
## 44 framing\_conditionFrameCode2:norm\_condition2:hedonic\_center 0.6372167  
## 45 framing\_conditionFrameCode2:norm\_condition4:egoistic\_center 0.6421804  
## 46 framing\_conditionFrameCode2:norm\_condition3:hedonic\_center 0.6472513  
## 47 norm\_condition4:egoistic\_center 0.6487181  
## 48 egoistic\_center 0.6571559  
## 49 framing\_conditionFrameCode1:norm\_condition4:egoistic\_center 0.6627273  
## 50 framing\_conditionFrameCode1:egoistic\_center 0.6918260  
## 51 framing\_conditionFrameCode1:norm\_condition1:egoistic\_center 0.6919330  
## 52 framing\_conditionFrameCode1:norm\_condition3:egoistic\_center 0.7081552  
## 53 norm\_condition1:egoistic\_center 0.7137543  
## 54 norm\_condition3:egoistic\_center 0.7225167  
## 55 framing\_conditionFrameCode2:egoistic\_center 0.7229182  
## 56 framing\_conditionFrameCode1:norm\_condition2:egoistic\_center 0.7380869  
## 57 framing\_conditionFrameCode2:norm\_condition3:egoistic\_center 0.7466009  
## 58 self\_dec\_center 0.7487626  
## 59 framing\_conditionFrameCode2:norm\_condition1:egoistic\_center 0.7500447  
## 60 Gender1 0.7534237  
## 61 norm\_condition2:egoistic\_center 0.7546110  
## 62 framing\_conditionFrameCode2:norm\_condition2:egoistic\_center 0.7684173  
## 63 clothing\_center 0.7724052  
## 64 impress\_manag\_center 0.7940550  
## 65 Age\_center 0.8091857  
## 66 framing\_conditionFrameCode1:norm\_condition3:ingroup\_center 0.8429928  
## 67 framing\_conditionFrameCode1:norm\_condition2:ingroup\_center 0.8509947  
## 68 ingroup\_center 0.8574627  
## 69 framing\_conditionFrameCode1:ingroup\_center 0.8648938  
## 70 norm\_condition2:ingroup\_center 0.8657622  
## 71 norm\_condition3:ingroup\_center 0.8682527  
## 72 framing\_conditionFrameCode1:norm\_condition4 0.8719567  
## 73 framing\_conditionFrameCode1:norm\_condition1:ingroup\_center 0.8733281  
## 74 norm\_condition1:ingroup\_center 0.8791175  
## 75 framing\_conditionFrameCode2:norm\_condition1:ingroup\_center 0.8827367  
## 76 framing\_conditionFrameCode2:norm\_condition2:ingroup\_center 0.8865508  
## 77 framing\_conditionFrameCode2:norm\_condition3:ingroup\_center 0.8883780  
## 78 framing\_conditionFrameCode2:ingroup\_center 0.8938566  
## 79 norm\_condition4:ingroup\_center 0.8969768  
## 80 framing\_conditionFrameCode1:norm\_condition4:ingroup\_center 0.8983078  
## 81 norm\_condition4 0.8996880  
## 82 framing\_conditionFrameCode1 0.9066696  
## 83 framing\_conditionFrameCode1:norm\_condition2 0.9088920  
## 84 framing\_conditionFrameCode2:norm\_condition4:ingroup\_center 0.9105334  
## 85 norm\_condition2 0.9205547  
## 86 framing\_conditionFrameCode1:norm\_condition3 0.9271964  
## 87 framing\_conditionFrameCode2 0.9281705  
## 88 framing\_conditionFrameCode1:norm\_condition1 0.9317543  
## 89 norm\_condition3 0.9323819  
## 90 framing\_conditionFrameCode2:norm\_condition2 0.9330844  
## 91 framing\_conditionFrameCode2:norm\_condition4 0.9334345  
## 92 framing\_conditionFrameCode2:norm\_condition1 0.9336908  
## 93 framing\_conditionFrameCode2:norm\_condition3 0.9388423  
## 94 norm\_condition1 0.9392582  
## VIF  
## 1 3.633270  
## 2 3.013803  
## 3 2.990483  
## 4 2.721309  
## 5 2.578845  
## 6 2.574994  
## 7 2.471227  
## 8 2.454016  
## 9 2.405892  
## 10 2.302107  
## 11 2.299477  
## 12 2.292284  
## 13 2.236430  
## 14 2.223034  
## 15 2.212480  
## 16 2.147599  
## 17 2.123953  
## 18 2.113735  
## 19 2.089025  
## 20 2.065727  
## 21 2.039379  
## 22 2.027742  
## 23 2.022871  
## 24 2.010988  
## 25 1.993670  
## 26 1.933377  
## 27 1.921790  
## 28 1.913609  
## 29 1.907041  
## 30 1.887304  
## 31 1.851171  
## 32 1.820659  
## 33 1.819668  
## 34 1.812772  
## 35 1.784028  
## 36 1.755257  
## 37 1.725015  
## 38 1.707463  
## 39 1.680328  
## 40 1.655457  
## 41 1.645328  
## 42 1.638809  
## 43 1.624206  
## 44 1.569325  
## 45 1.557195  
## 46 1.544995  
## 47 1.541502  
## 48 1.521709  
## 49 1.508916  
## 50 1.445450  
## 51 1.445227  
## 52 1.412120  
## 53 1.401042  
## 54 1.384051  
## 55 1.383282  
## 56 1.354854  
## 57 1.339404  
## 58 1.335537  
## 59 1.333254  
## 60 1.327274  
## 61 1.325186  
## 62 1.301376  
## 63 1.294657  
## 64 1.259359  
## 65 1.235810  
## 66 1.186250  
## 67 1.175095  
## 68 1.166231  
## 69 1.156211  
## 70 1.155052  
## 71 1.151738  
## 72 1.146846  
## 73 1.145045  
## 74 1.137504  
## 75 1.132841  
## 76 1.127967  
## 77 1.125647  
## 78 1.118748  
## 79 1.114856  
## 80 1.113204  
## 81 1.111496  
## 82 1.102938  
## 83 1.100241  
## 84 1.098257  
## 85 1.086301  
## 86 1.078520  
## 87 1.077388  
## 88 1.073244  
## 89 1.072522  
## 90 1.071714  
## 91 1.071312  
## 92 1.071018  
## 93 1.065142  
## 94 1.064670

Either a *low* tolerance (below 0.20 is one rule of thumb) or a *high* VIF (above 5 or 10) is an indication of a problem with multicollinearity.

# Simple Effects

Averaging scores across imputations

complete\_data\_subset <- complete\_data %>%  
 dplyr::select(.imp, .id, consumer\_intentions, consumer\_behaviors, Gender, framing\_condition, norm\_condition, biospheric\_center, altruistic\_center, egoistic\_center, hedonic\_center, ingroup\_center, Age\_center, clothing\_center, self\_dec\_center, impress\_manag\_center)  
  
average\_df <- complete\_data\_subset %>%   
 group\_by(.id) %>%  
 transmute(.imp = .imp,   
 consumer\_behaviors = consumer\_behaviors,   
 Gender = Gender,  
 framing\_condition = framing\_condition,  
 norm\_condition = norm\_condition,  
 biospheric\_center = mean(biospheric\_center),  
 altruistic\_center = mean(altruistic\_center),  
 egoistic\_center = mean(egoistic\_center),  
 hedonic\_center = mean(hedonic\_center),  
 ingroup\_center = mean(ingroup\_center),  
 Age\_center = mean(Age\_center),  
 clothing\_center = mean(clothing\_center),  
 self\_dec\_center = mean(self\_dec\_center),  
 impress\_manag\_center = mean(impress\_manag\_center),  
 consumer\_intentions = mean(consumer\_intentions))  
  
  
average\_df <- average\_df %>%  
 filter(.imp == 1)

Labels to use with facet\_wrap

norm\_labs <- c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")  
names(norm\_labs) <- c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm")  
  
frame\_labs <- c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")  
names(frame\_labs) <- c("control\_framing","pro\_env\_framing","self\_enh\_framing")

Text Settings

text\_settings <- theme(text = element\_text(size = 20)) +  
 theme(plot.title = element\_text(size = 20, face = 'bold')) +  
 theme(axis.title.x = element\_text(face = 'bold')) +  
 theme(axis.title.y = element\_text(face = 'bold')) +  
 theme(axis.text.x = element\_text(size = 20)) +  
 theme(axis.text.y = element\_text(size = 20)) +  
 theme(axis.ticks = element\_blank())

## Estimated Marginal Means

cell\_emmeans <- emmeans(mod\_mice, ~ norm\_condition\*framing\_condition)  
cell\_emmeans %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.692 |
| descriptive\_norm | control\_framing | 4.29 | 0.13 | 1038 | 4.03 | 4.553 |
| convention\_norm | control\_framing | 4.50 | 0.14 | 1038 | 4.23 | 4.769 |
| social\_norm | control\_framing | 4.16 | 0.12 | 1038 | 3.93 | 4.388 |
| moral\_norm | control\_framing | 4.23 | 0.14 | 1038 | 3.95 | 4.512 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.863 |
| descriptive\_norm | pro\_env\_framing | 4.44 | 0.13 | 1038 | 4.19 | 4.693 |
| convention\_norm | pro\_env\_framing | 4.54 | 0.12 | 1038 | 4.30 | 4.770 |
| social\_norm | pro\_env\_framing | 4.42 | 0.13 | 1038 | 4.16 | 4.687 |
| moral\_norm | pro\_env\_framing | 4.38 | 0.12 | 1038 | 4.14 | 4.614 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.485 |
| descriptive\_norm | self\_enh\_framing | 4.47 | 0.12 | 1038 | 4.24 | 4.713 |
| convention\_norm | self\_enh\_framing | 4.47 | 0.13 | 1038 | 4.21 | 4.724 |
| social\_norm | self\_enh\_framing | 4.24 | 0.14 | 1038 | 3.98 | 4.513 |
| moral\_norm | self\_enh\_framing | 4.38 | 0.13 | 1038 | 4.12 | 4.629 |

frame\_emmeans <- emmeans(mod\_mice, ~ framing\_condition)  
frame\_emmeans %>%  
 knitr::kable(digits = 2)

| framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | 4.33 | 0.06 | 1038 | 4.21 | 4.44 |
| pro\_env\_framing | 4.48 | 0.06 | 1038 | 4.37 | 4.59 |
| self\_enh\_framing | 4.36 | 0.06 | 1038 | 4.25 | 4.47 |

norm\_emmeans <- emmeans(mod\_mice, ~ norm\_condition)  
norm\_emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | 4.43 | 0.07 | 1038 | 4.29 | 4.58 |
| descriptive\_norm | 4.40 | 0.07 | 1038 | 4.26 | 4.55 |
| convention\_norm | 4.50 | 0.07 | 1038 | 4.36 | 4.65 |
| social\_norm | 4.28 | 0.08 | 1038 | 4.13 | 4.42 |
| moral\_norm | 4.33 | 0.08 | 1038 | 4.18 | 4.48 |

## Framing Condition

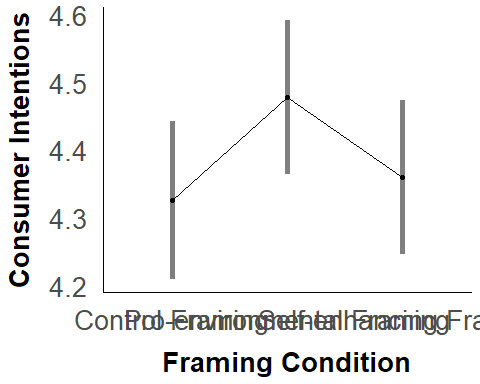
H1: Consumer intentions/behaviors will be lower in the self-enhancing framing than in the pro-environmental or control framing conditions.

Comparing each level of framing condition

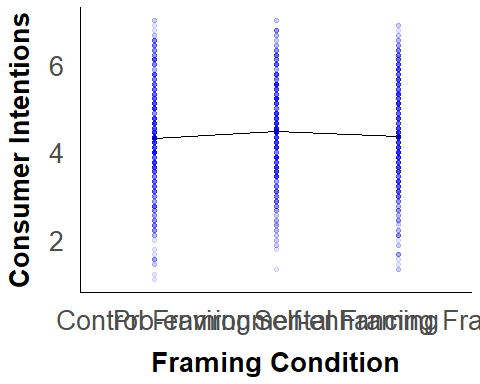
frame\_means <- emmeans(mod\_mice, pairwise ~ framing\_condition, adjust = "none")  
  
frame\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.15 | 0.08 | 1038 | -1.87 | 0.062 |
| control\_framing - self\_enh\_framing | -0.03 | 0.08 | 1038 | -0.41 | 0.679 |
| pro\_env\_framing - self\_enh\_framing | 0.12 | 0.08 | 1038 | 1.46 | 0.145 |

# without data overlaid  
emmip(mod\_mice, ~ framing\_condition, CIs = TRUE, CIarg = list(lwd = 2, alpha = 0.5), xlab = "Framing Condition", ylab = "Consumer Intentions") + scale\_x\_discrete(breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"),  
 labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



# with data overlaid (scores averaged across imputations)  
emmip(mod\_mice, ~ framing\_condition, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.5), xlab = "Framing Condition", ylab = "Consumer Intentions") + geom\_point(data = average\_df, aes(x = framing\_condition, y = consumer\_intentions), alpha = 0.1, color = "blue") + scale\_x\_discrete(breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"),  
 labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + theme\_apa() + text\_settings



Effect Sizes (Cohen’s D)

sigma\_pool <- mean(pool\_obj$glanced$sigma)  
df\_resid\_pool <- mean(pool\_obj$glanced$df.residual)  
  
eff\_size(frame\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>% knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (control\_framing - pro\_env\_framing) | -0.14 | 0.08 | 1038 | -0.29 | 0.01 |
| (control\_framing - self\_enh\_framing) | -0.03 | 0.08 | 1038 | -0.18 | 0.12 |
| (pro\_env\_framing - self\_enh\_framing) | 0.11 | 0.08 | 1038 | -0.04 | 0.26 |

## Norm Condition

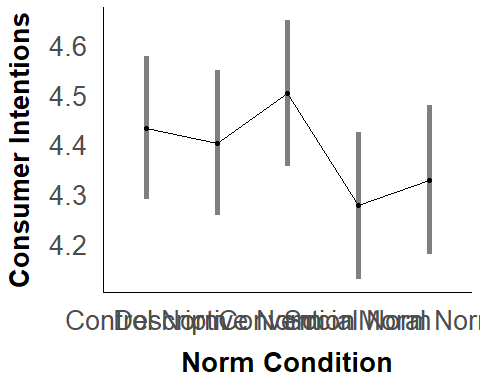
H2: Consumer intentions/behaviors will be lower in each norm condition compared to the control norm condition.

Comparing each level of norm condition:

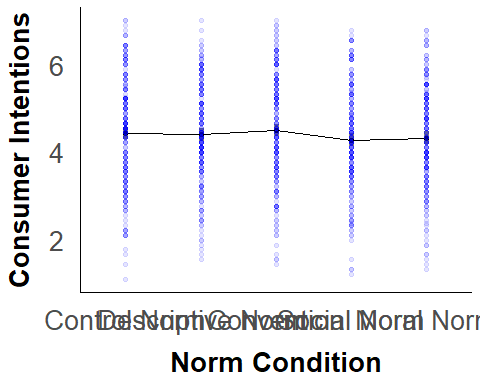
norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition, adjust = "none")  
  
norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | 0.03 | 0.10 | 1038 | 0.29 | 0.774 |
| control\_norm - convention\_norm | -0.07 | 0.10 | 1038 | -0.68 | 0.499 |
| control\_norm - social\_norm | 0.16 | 0.10 | 1038 | 1.50 | 0.134 |
| control\_norm - moral\_norm | 0.10 | 0.10 | 1038 | 1.00 | 0.320 |
| descriptive\_norm - convention\_norm | -0.10 | 0.10 | 1038 | -0.96 | 0.339 |
| descriptive\_norm - social\_norm | 0.13 | 0.10 | 1038 | 1.21 | 0.228 |
| descriptive\_norm - moral\_norm | 0.07 | 0.11 | 1038 | 0.71 | 0.478 |
| convention\_norm - social\_norm | 0.23 | 0.11 | 1038 | 2.15 | 0.031 |
| convention\_norm - moral\_norm | 0.17 | 0.11 | 1038 | 1.65 | 0.100 |
| social\_norm - moral\_norm | -0.05 | 0.11 | 1038 | -0.49 | 0.626 |

# without data overlaid  
emmip(mod\_mice, ~ norm\_condition, CIs = TRUE, CIarg = list(lwd = 2, alpha = 0.5), xlab = "Norm Condition", ylab = "Consumer Intentions") + scale\_x\_discrete(breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"),  
 labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ norm\_condition, CIs = TRUE, xlab = "Norm Condition", ylab = "Consumer Intentions") + geom\_point(data = average\_df, aes(x = norm\_condition, y = consumer\_intentions), alpha = 0.1, color = "blue") + scale\_x\_discrete(breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + theme\_apa() + text\_settings



Effect Sizes (Cohen’s D):

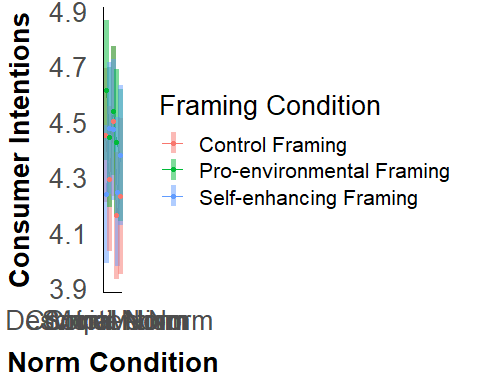
eff\_size(norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (control\_norm - descriptive\_norm) | 0.03 | 0.1 | 1038 | -0.16 | 0.22 |
| (control\_norm - convention\_norm) | -0.07 | 0.1 | 1038 | -0.26 | 0.12 |
| (control\_norm - social\_norm) | 0.15 | 0.1 | 1038 | -0.05 | 0.34 |
| (control\_norm - moral\_norm) | 0.10 | 0.1 | 1038 | -0.09 | 0.29 |
| (descriptive\_norm - convention\_norm) | -0.09 | 0.1 | 1038 | -0.29 | 0.10 |
| (descriptive\_norm - social\_norm) | 0.12 | 0.1 | 1038 | -0.07 | 0.31 |
| (descriptive\_norm - moral\_norm) | 0.07 | 0.1 | 1038 | -0.12 | 0.26 |
| (convention\_norm - social\_norm) | 0.21 | 0.1 | 1038 | 0.02 | 0.40 |
| (convention\_norm - moral\_norm) | 0.16 | 0.1 | 1038 | -0.03 | 0.36 |
| (social\_norm - moral\_norm) | -0.05 | 0.1 | 1038 | -0.24 | 0.15 |

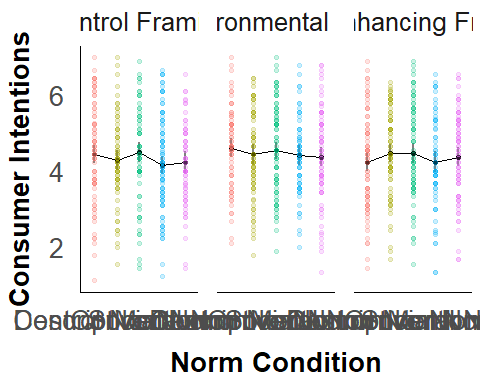
## Framing X Norm

H3: There will be a two-way interaction between framing & norm condition such that the effect of each norm will be stronger in the self-enhancing framing than in the pro-environmental or control framing conditions.

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ norm\_condition, CIs = TRUE, CIarg = list(lwd = 2, alpha = 0.5), xlab = "Norm Condition", ylab = "Consumer Intentions") + scale\_x\_discrete(breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"),  
 labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ norm\_condition | framing\_condition, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.5), xlab = "Norm Condition", ylab = "Consumer Intentions") + geom\_point(data = average\_df, aes(x = norm\_condition, y = consumer\_intentions, color = norm\_condition), alpha = 0.2, show.legend = FALSE) + scale\_x\_discrete(breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"),  
 labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) + theme\_apa() + text\_settings



### Control vs Descriptive Norm

Control norm vs DN in each Framing Condition

# Control norm  
chosen\_values <- list(norm\_condition = c("control\_norm", "descriptive\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
control\_vs\_DN <- emmeans(mod\_mice, pairwise ~ norm\_condition | framing\_condition, at = chosen\_values, adjust = "none")  
  
control\_vs\_DN$emmeans %>%   
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| descriptive\_norm | control\_framing | 4.29 | 0.13 | 1038 | 4.03 | 4.55 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| descriptive\_norm | pro\_env\_framing | 4.44 | 0.13 | 1038 | 4.19 | 4.69 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |
| descriptive\_norm | self\_enh\_framing | 4.47 | 0.12 | 1038 | 4.24 | 4.71 |

control\_vs\_DN$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.16 | 0.18 | 1038 | 0.87 | 0.384 |
| control\_norm - descriptive\_norm | pro\_env\_framing | 0.17 | 0.18 | 1038 | 0.94 | 0.349 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.24 | 0.18 | 1038 | -1.36 | 0.174 |

eff\_size(control\_vs\_DN, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm - descriptive\_norm) | control\_framing | 0.15 | 0.17 | 1038 | -0.19 | 0.48 |
| (control\_norm - descriptive\_norm) | pro\_env\_framing | 0.16 | 0.17 | 1038 | -0.17 | 0.49 |
| (control\_norm - descriptive\_norm) | self\_enh\_framing | -0.22 | 0.16 | 1038 | -0.55 | 0.10 |

### Control vs Convention

Control norm vs Convention in each Framing Condition

# Control norm  
chosen\_values <- list(norm\_condition = c("control\_norm", "convention\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
control\_vs\_conv <- emmeans(mod\_mice, pairwise ~ norm\_condition | framing\_condition, at = chosen\_values, adjust = "none")  
  
control\_vs\_conv$emmeans %>%   
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| convention\_norm | control\_framing | 4.50 | 0.14 | 1038 | 4.23 | 4.77 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| convention\_norm | pro\_env\_framing | 4.54 | 0.12 | 1038 | 4.30 | 4.77 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |
| convention\_norm | self\_enh\_framing | 4.47 | 0.13 | 1038 | 4.21 | 4.72 |

control\_vs\_conv$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - convention\_norm | control\_framing | -0.05 | 0.18 | 1038 | -0.27 | 0.783 |
| control\_norm - convention\_norm | pro\_env\_framing | 0.07 | 0.17 | 1038 | 0.42 | 0.671 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.23 | 0.18 | 1038 | -1.29 | 0.198 |

eff\_size(control\_vs\_conv, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm - convention\_norm) | control\_framing | -0.05 | 0.17 | 1038 | -0.39 | 0.29 |
| (control\_norm - convention\_norm) | pro\_env\_framing | 0.07 | 0.16 | 1038 | -0.25 | 0.39 |
| (control\_norm - convention\_norm) | self\_enh\_framing | -0.22 | 0.17 | 1038 | -0.55 | 0.11 |

### Control vs Social Norm

Control norm vs Social Norm in each Framing Condition

# Control norm  
chosen\_values <- list(norm\_condition = c("control\_norm", "social\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
control\_vs\_SN <- emmeans(mod\_mice, pairwise ~ norm\_condition | framing\_condition, at = chosen\_values, adjust = "none")  
  
control\_vs\_SN$emmeans %>%   
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| social\_norm | control\_framing | 4.16 | 0.12 | 1038 | 3.93 | 4.39 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| social\_norm | pro\_env\_framing | 4.42 | 0.13 | 1038 | 4.16 | 4.69 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |
| social\_norm | self\_enh\_framing | 4.24 | 0.14 | 1038 | 3.98 | 4.51 |

control\_vs\_SN$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - social\_norm | control\_framing | 0.29 | 0.17 | 1038 | 1.71 | 0.088 |
| control\_norm - social\_norm | pro\_env\_framing | 0.19 | 0.19 | 1038 | 1.02 | 0.310 |
| control\_norm - social\_norm | self\_enh\_framing | -0.01 | 0.19 | 1038 | -0.05 | 0.962 |

eff\_size(control\_vs\_SN, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm - social\_norm) | control\_framing | 0.27 | 0.16 | 1038 | -0.04 | 0.58 |
| (control\_norm - social\_norm) | pro\_env\_framing | 0.18 | 0.17 | 1038 | -0.16 | 0.52 |
| (control\_norm - social\_norm) | self\_enh\_framing | -0.01 | 0.17 | 1038 | -0.35 | 0.33 |

### Control vs Moral Norm

Control norm vs Moral Norm in each Framing Condition

# Control norm  
chosen\_values <- list(norm\_condition = c("control\_norm", "moral\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
control\_vs\_MN <- emmeans(mod\_mice, pairwise ~ norm\_condition | framing\_condition, at = chosen\_values, adjust = "none")  
  
control\_vs\_MN$emmeans %>%   
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| moral\_norm | control\_framing | 4.23 | 0.14 | 1038 | 3.95 | 4.51 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| moral\_norm | pro\_env\_framing | 4.38 | 0.12 | 1038 | 4.14 | 4.61 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |
| moral\_norm | self\_enh\_framing | 4.38 | 0.13 | 1038 | 4.12 | 4.63 |

control\_vs\_MN$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - moral\_norm | control\_framing | 0.22 | 0.19 | 1038 | 1.16 | 0.246 |
| control\_norm - moral\_norm | pro\_env\_framing | 0.23 | 0.18 | 1038 | 1.33 | 0.183 |
| control\_norm - moral\_norm | self\_enh\_framing | -0.14 | 0.18 | 1038 | -0.78 | 0.435 |

eff\_size(control\_vs\_MN, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm - moral\_norm) | control\_framing | 0.21 | 0.18 | 1038 | -0.14 | 0.55 |
| (control\_norm - moral\_norm) | pro\_env\_framing | 0.22 | 0.16 | 1038 | -0.10 | 0.54 |
| (control\_norm - moral\_norm) | self\_enh\_framing | -0.13 | 0.17 | 1038 | -0.46 | 0.20 |

## Values Interactions

## Biospheric Values

### Bio x Norm

Is the slope of the relationship between biospheric values & consumer intentions stronger in any one of the norm conditions compared to the others?

bio\_norm\_slopes <- emtrends(mod\_mice, pairwise~norm\_condition, var = "biospheric\_center", adjust = "none")  
  
bio\_norm\_slopes$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | biospheric\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | 0.45 | 0.10 | 1038 | 0.26 | 0.64 |
| descriptive\_norm | 0.31 | 0.10 | 1038 | 0.10 | 0.51 |
| convention\_norm | 0.61 | 0.10 | 1038 | 0.41 | 0.81 |
| social\_norm | 0.26 | 0.10 | 1038 | 0.06 | 0.45 |
| moral\_norm | 0.19 | 0.11 | 1038 | -0.04 | 0.42 |

bio\_norm\_slopes$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3)) # correct p-values

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | 0.14 | 0.14 | 1038 | 0.99 | 0.324 |
| control\_norm - convention\_norm | -0.16 | 0.14 | 1038 | -1.16 | 0.245 |
| control\_norm - social\_norm | 0.19 | 0.14 | 1038 | 1.34 | 0.180 |
| control\_norm - moral\_norm | 0.26 | 0.15 | 1038 | 1.70 | 0.089 |
| descriptive\_norm - convention\_norm | -0.30 | 0.15 | 1038 | -2.10 | 0.036 |
| descriptive\_norm - social\_norm | 0.05 | 0.14 | 1038 | 0.34 | 0.734 |
| descriptive\_norm - moral\_norm | 0.12 | 0.15 | 1038 | 0.75 | 0.452 |
| convention\_norm - social\_norm | 0.35 | 0.14 | 1038 | 2.46 | 0.014 |
| convention\_norm - moral\_norm | 0.42 | 0.15 | 1038 | 2.73 | 0.006 |
| social\_norm - moral\_norm | 0.07 | 0.15 | 1038 | 0.44 | 0.663 |

Confidence interval

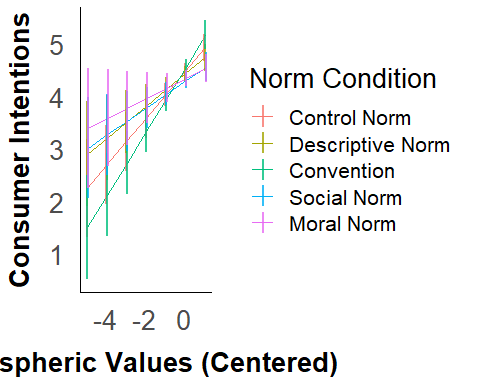
confint(bio\_norm\_slopes$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | 0.14 | 0.14 | 1038 | -0.14 | 0.42 |
| control\_norm - convention\_norm | -0.16 | 0.14 | 1038 | -0.44 | 0.11 |
| control\_norm - social\_norm | 0.19 | 0.14 | 1038 | -0.09 | 0.47 |
| control\_norm - moral\_norm | 0.26 | 0.15 | 1038 | -0.04 | 0.55 |
| descriptive\_norm - convention\_norm | -0.30 | 0.15 | 1038 | -0.59 | -0.02 |
| descriptive\_norm - social\_norm | 0.05 | 0.14 | 1038 | -0.23 | 0.33 |
| descriptive\_norm - moral\_norm | 0.12 | 0.15 | 1038 | -0.19 | 0.42 |
| convention\_norm - social\_norm | 0.35 | 0.14 | 1038 | 0.07 | 0.64 |
| convention\_norm - moral\_norm | 0.42 | 0.15 | 1038 | 0.12 | 0.72 |
| social\_norm - moral\_norm | 0.07 | 0.15 | 1038 | -0.23 | 0.37 |

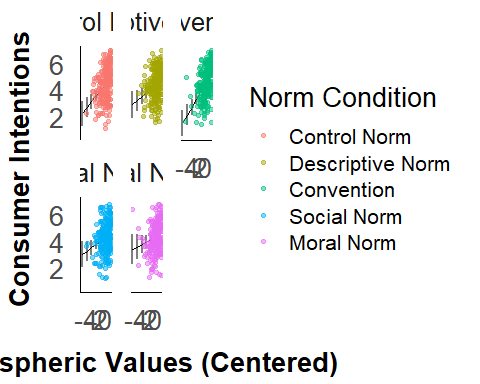
# On a single graph  
describe(average\_df$biospheric\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.99 0.15 0.12 1.11 -4.85 1.15 6 -1.1 1.59 0.03

at\_list <- list(biospheric\_center = seq(-4.9, 1.2, by = 1)) # add .05 to the bounds set by min and max  
  
# without data overlaid  
emmip(mod\_mice, norm\_condition ~ biospheric\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.8), xlab = "Biospheric Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"),  
 labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ biospheric\_center | norm\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Biospheric Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + geom\_point(data = average\_df, aes(x = biospheric\_center, y = consumer\_intentions, color = norm\_condition), alpha = 0.5) + facet\_wrap(~norm\_condition, labeller = labeller(norm\_condition = norm\_labs)) + theme\_apa() + text\_settings



### Bio x Framing

Is the slope of the relationship between biospheric values & consumer intentions stronger in any one of the framing conditions compared to the others?

bio\_frame\_trends <- emtrends(mod\_mice, pairwise~framing\_condition, var = "biospheric\_center", adjust = "none")  
  
bio\_frame\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| framing\_condition | biospheric\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | 0.37 | 0.09 | 1038 | 0.20 | 0.53 |
| pro\_env\_framing | 0.40 | 0.07 | 1038 | 0.27 | 0.54 |
| self\_enh\_framing | 0.32 | 0.09 | 1038 | 0.15 | 0.49 |

bio\_frame\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

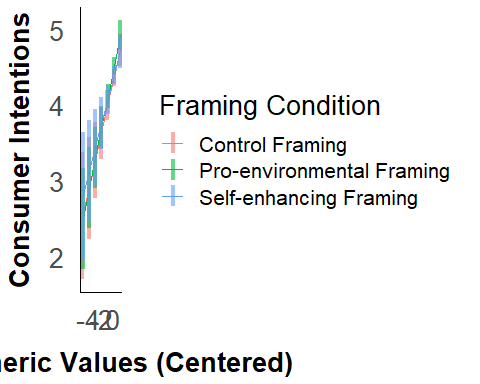
| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.04 | 0.11 | 1038 | -0.35 | 0.727 |
| control\_framing - self\_enh\_framing | 0.05 | 0.12 | 1038 | 0.39 | 0.695 |
| pro\_env\_framing - self\_enh\_framing | 0.09 | 0.11 | 1038 | 0.78 | 0.438 |

Confidence interval

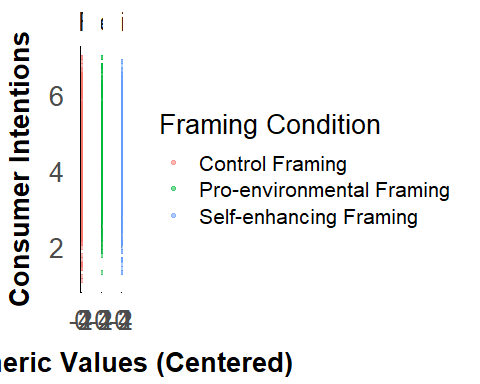
confint(bio\_frame\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.04 | 0.11 | 1038 | -0.25 | 0.18 |
| control\_framing - self\_enh\_framing | 0.05 | 0.12 | 1038 | -0.19 | 0.29 |
| pro\_env\_framing - self\_enh\_framing | 0.09 | 0.11 | 1038 | -0.13 | 0.30 |

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ biospheric\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.5, alpha = 0.6), xlab = "Biospheric Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"),  
 labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ biospheric\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Biospheric Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + geom\_point(data = average\_df, aes(x = biospheric\_center, y = consumer\_intentions, color = framing\_condition), alpha = 0.5) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) + theme\_apa() + text\_settings



### Bio x Norm x Framing

H4: There will be a three-way interaction between values (biospheric, egoistic, altruistic, hedonic), framing condition, & norm condition such that when a pro-environmental or control framing is used, values will moderate the effect of each norm condition, but not when a self-enhancing framing is used.

AKA, is there a two-way interaction between values & norm condition across the three different framing conditions?

bio\_frame\_norm\_trends <- emtrends(mod\_mice, pairwise~norm\_condition | framing\_condition, var = "biospheric\_center", adjust = "none")  
  
bio\_frame\_norm\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | biospheric\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.57 | 0.16 | 1038 | 0.26 | 0.88 |
| descriptive\_norm | control\_framing | 0.47 | 0.19 | 1038 | 0.08 | 0.85 |
| convention\_norm | control\_framing | 0.83 | 0.19 | 1038 | 0.46 | 1.20 |
| social\_norm | control\_framing | 0.04 | 0.16 | 1038 | -0.28 | 0.36 |
| moral\_norm | control\_framing | -0.08 | 0.24 | 1038 | -0.55 | 0.39 |
| control\_norm | pro\_env\_framing | 0.27 | 0.16 | 1038 | -0.04 | 0.58 |
| descriptive\_norm | pro\_env\_framing | 0.18 | 0.16 | 1038 | -0.14 | 0.49 |
| convention\_norm | pro\_env\_framing | 0.68 | 0.16 | 1038 | 0.36 | 1.00 |
| social\_norm | pro\_env\_framing | 0.35 | 0.14 | 1038 | 0.07 | 0.64 |
| moral\_norm | pro\_env\_framing | 0.54 | 0.15 | 1038 | 0.25 | 0.83 |
| control\_norm | self\_enh\_framing | 0.50 | 0.19 | 1038 | 0.13 | 0.87 |
| descriptive\_norm | self\_enh\_framing | 0.28 | 0.18 | 1038 | -0.08 | 0.63 |
| convention\_norm | self\_enh\_framing | 0.32 | 0.18 | 1038 | -0.04 | 0.68 |
| social\_norm | self\_enh\_framing | 0.38 | 0.21 | 1038 | -0.03 | 0.78 |
| moral\_norm | self\_enh\_framing | 0.11 | 0.20 | 1038 | -0.29 | 0.51 |

bio\_frame\_norm\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

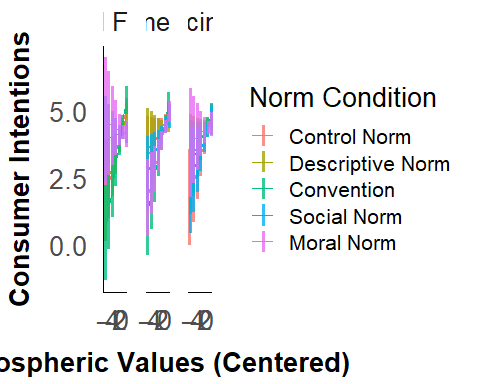
| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.10 | 0.25 | 1038 | 0.41 | 0.684 |
| control\_norm - convention\_norm | control\_framing | -0.26 | 0.24 | 1038 | -1.08 | 0.282 |
| control\_norm - social\_norm | control\_framing | 0.53 | 0.23 | 1038 | 2.31 | 0.021 |
| control\_norm - moral\_norm | control\_framing | 0.65 | 0.29 | 1038 | 2.27 | 0.024 |
| descriptive\_norm - convention\_norm | control\_framing | -0.36 | 0.27 | 1038 | -1.35 | 0.176 |
| descriptive\_norm - social\_norm | control\_framing | 0.42 | 0.26 | 1038 | 1.66 | 0.098 |
| descriptive\_norm - moral\_norm | control\_framing | 0.55 | 0.31 | 1038 | 1.77 | 0.076 |
| convention\_norm - social\_norm | control\_framing | 0.79 | 0.25 | 1038 | 3.17 | 0.002 |
| convention\_norm - moral\_norm | control\_framing | 0.91 | 0.30 | 1038 | 3.01 | 0.003 |
| social\_norm - moral\_norm | control\_framing | 0.12 | 0.29 | 1038 | 0.42 | 0.674 |
| control\_norm - descriptive\_norm | pro\_env\_framing | 0.09 | 0.22 | 1038 | 0.42 | 0.674 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.41 | 0.23 | 1038 | -1.80 | 0.071 |
| control\_norm - social\_norm | pro\_env\_framing | -0.08 | 0.21 | 1038 | -0.39 | 0.693 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.27 | 0.22 | 1038 | -1.23 | 0.221 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.51 | 0.23 | 1038 | -2.22 | 0.027 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.18 | 0.21 | 1038 | -0.84 | 0.402 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.36 | 0.22 | 1038 | -1.67 | 0.096 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.33 | 0.22 | 1038 | 1.50 | 0.133 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.15 | 0.22 | 1038 | 0.66 | 0.507 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.18 | 0.21 | 1038 | -0.88 | 0.379 |
| control\_norm - descriptive\_norm | self\_enh\_framing | 0.22 | 0.26 | 1038 | 0.85 | 0.398 |
| control\_norm - convention\_norm | self\_enh\_framing | 0.18 | 0.26 | 1038 | 0.70 | 0.486 |
| control\_norm - social\_norm | self\_enh\_framing | 0.13 | 0.28 | 1038 | 0.45 | 0.655 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.39 | 0.28 | 1038 | 1.40 | 0.162 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.04 | 0.26 | 1038 | -0.16 | 0.871 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.10 | 0.28 | 1038 | -0.36 | 0.722 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.16 | 0.27 | 1038 | 0.60 | 0.549 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.06 | 0.28 | 1038 | -0.20 | 0.838 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.20 | 0.27 | 1038 | 0.75 | 0.453 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.26 | 0.29 | 1038 | 0.89 | 0.372 |

Confidence interval

confint(bio\_frame\_norm\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.10 | 0.25 | 1038 | -0.39 | 0.59 |
| control\_norm - convention\_norm | control\_framing | -0.26 | 0.24 | 1038 | -0.74 | 0.22 |
| control\_norm - social\_norm | control\_framing | 0.53 | 0.23 | 1038 | 0.08 | 0.97 |
| control\_norm - moral\_norm | control\_framing | 0.65 | 0.29 | 1038 | 0.09 | 1.21 |
| descriptive\_norm - convention\_norm | control\_framing | -0.36 | 0.27 | 1038 | -0.89 | 0.16 |
| descriptive\_norm - social\_norm | control\_framing | 0.42 | 0.26 | 1038 | -0.08 | 0.93 |
| descriptive\_norm - moral\_norm | control\_framing | 0.55 | 0.31 | 1038 | -0.06 | 1.15 |
| convention\_norm - social\_norm | control\_framing | 0.79 | 0.25 | 1038 | 0.30 | 1.28 |
| convention\_norm - moral\_norm | control\_framing | 0.91 | 0.30 | 1038 | 0.32 | 1.50 |
| social\_norm - moral\_norm | control\_framing | 0.12 | 0.29 | 1038 | -0.45 | 0.69 |
| control\_norm - descriptive\_norm | pro\_env\_framing | 0.09 | 0.22 | 1038 | -0.35 | 0.54 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.41 | 0.23 | 1038 | -0.86 | 0.04 |
| control\_norm - social\_norm | pro\_env\_framing | -0.08 | 0.21 | 1038 | -0.51 | 0.34 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.27 | 0.22 | 1038 | -0.69 | 0.16 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.51 | 0.23 | 1038 | -0.96 | -0.06 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.18 | 0.21 | 1038 | -0.60 | 0.24 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.36 | 0.22 | 1038 | -0.79 | 0.06 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.33 | 0.22 | 1038 | -0.10 | 0.76 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.15 | 0.22 | 1038 | -0.29 | 0.58 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.18 | 0.21 | 1038 | -0.59 | 0.22 |
| control\_norm - descriptive\_norm | self\_enh\_framing | 0.22 | 0.26 | 1038 | -0.30 | 0.74 |
| control\_norm - convention\_norm | self\_enh\_framing | 0.18 | 0.26 | 1038 | -0.33 | 0.69 |
| control\_norm - social\_norm | self\_enh\_framing | 0.13 | 0.28 | 1038 | -0.43 | 0.68 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.39 | 0.28 | 1038 | -0.15 | 0.93 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.04 | 0.26 | 1038 | -0.54 | 0.46 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.10 | 0.28 | 1038 | -0.64 | 0.44 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.16 | 0.27 | 1038 | -0.37 | 0.69 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.06 | 0.28 | 1038 | -0.60 | 0.48 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.20 | 0.27 | 1038 | -0.33 | 0.74 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.26 | 0.29 | 1038 | -0.31 | 0.83 |

# without data overlaid  
emmip(mod\_mice, norm\_condition ~ biospheric\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Biospheric Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) + theme\_apa() + text\_settings



# with data overlaid - doesn't work

## Altruistic Values

### Altruistic x Norm

Is the slope of the relationship between altruistic values & consumer intentions stronger in any one of the norm conditions compared to the others?

alt\_norm\_slopes <- emtrends(mod\_mice, pairwise~norm\_condition, var = "altruistic\_center", adjust = "none")  
  
alt\_norm\_slopes$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | altruistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | 0.12 | 0.16 | 1038 | -0.18 | 0.43 |
| descriptive\_norm | -0.13 | 0.13 | 1038 | -0.39 | 0.13 |
| convention\_norm | -0.05 | 0.13 | 1038 | -0.31 | 0.21 |
| social\_norm | 0.10 | 0.15 | 1038 | -0.19 | 0.39 |
| moral\_norm | 0.35 | 0.13 | 1038 | 0.09 | 0.60 |

alt\_norm\_slopes$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3)) # correct p-values

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | 0.25 | 0.20 | 1038 | 1.26 | 0.210 |
| control\_norm - convention\_norm | 0.17 | 0.20 | 1038 | 0.85 | 0.393 |
| control\_norm - social\_norm | 0.02 | 0.21 | 1038 | 0.10 | 0.922 |
| control\_norm - moral\_norm | -0.22 | 0.20 | 1038 | -1.10 | 0.271 |
| descriptive\_norm - convention\_norm | -0.08 | 0.19 | 1038 | -0.43 | 0.670 |
| descriptive\_norm - social\_norm | -0.23 | 0.20 | 1038 | -1.18 | 0.238 |
| descriptive\_norm - moral\_norm | -0.48 | 0.18 | 1038 | -2.58 | 0.010 |
| convention\_norm - social\_norm | -0.15 | 0.20 | 1038 | -0.78 | 0.438 |
| convention\_norm - moral\_norm | -0.40 | 0.18 | 1038 | -2.14 | 0.032 |
| social\_norm - moral\_norm | -0.24 | 0.20 | 1038 | -1.24 | 0.216 |

Confidence interval

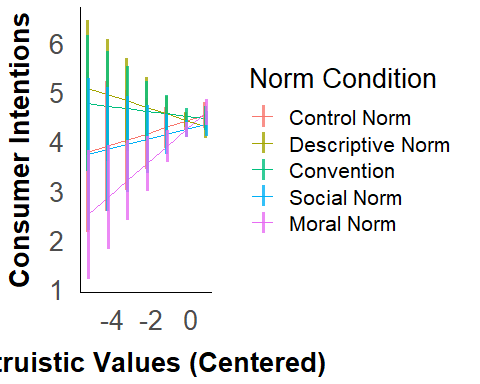
confint(alt\_norm\_slopes$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | 0.25 | 0.20 | 1038 | -0.14 | 0.65 |
| control\_norm - convention\_norm | 0.17 | 0.20 | 1038 | -0.23 | 0.58 |
| control\_norm - social\_norm | 0.02 | 0.21 | 1038 | -0.40 | 0.44 |
| control\_norm - moral\_norm | -0.22 | 0.20 | 1038 | -0.62 | 0.17 |
| descriptive\_norm - convention\_norm | -0.08 | 0.19 | 1038 | -0.45 | 0.29 |
| descriptive\_norm - social\_norm | -0.23 | 0.20 | 1038 | -0.62 | 0.15 |
| descriptive\_norm - moral\_norm | -0.48 | 0.18 | 1038 | -0.84 | -0.11 |
| convention\_norm - social\_norm | -0.15 | 0.20 | 1038 | -0.54 | 0.23 |
| convention\_norm - moral\_norm | -0.40 | 0.18 | 1038 | -0.76 | -0.03 |
| social\_norm - moral\_norm | -0.24 | 0.20 | 1038 | -0.63 | 0.14 |

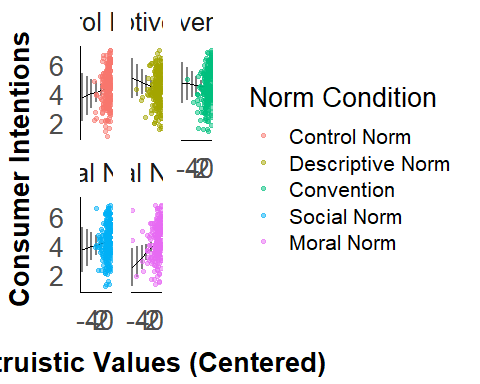
# On a single graph  
describe(average\_df$altruistic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.8 0.29 0.12 0.74 -5.21 0.79 6 -1.91 6.11 0.02

at\_list <- list(altruistic\_center = seq(-5.26, 0.84, by = 1))  
  
# without data overlaid  
emmip(mod\_mice, norm\_condition ~ altruistic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Altruistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ altruistic\_center | norm\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Altruistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + geom\_point(data = average\_df, aes(x = altruistic\_center, y = consumer\_intentions, color = norm\_condition), alpha = 0.5) + facet\_wrap(~norm\_condition, labeller = labeller(norm\_condition = norm\_labs)) +theme\_apa() + text\_settings



### Altruistic x Framing

Is the slope of the relationship between altruistic values & consumer intentions stronger in any one of the framing conditions compared to the others?

alt\_frame\_trends <- emtrends(mod\_mice, pairwise~framing\_condition, var = "altruistic\_center", adjust = "none")  
  
alt\_frame\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| framing\_condition | altruistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | 0.11 | 0.11 | 1038 | -0.09 | 0.32 |
| pro\_env\_framing | -0.01 | 0.10 | 1038 | -0.20 | 0.19 |
| self\_enh\_framing | 0.13 | 0.12 | 1038 | -0.10 | 0.37 |

alt\_frame\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

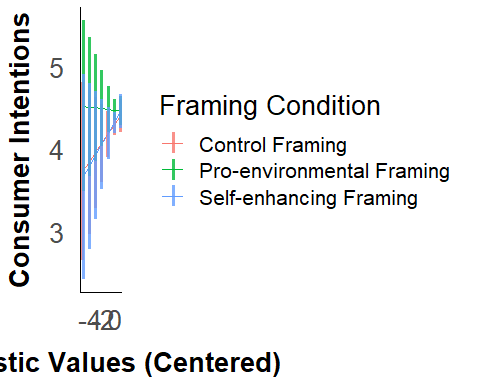
| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | 0.12 | 0.14 | 1038 | 0.85 | 0.396 |
| control\_framing - self\_enh\_framing | -0.02 | 0.16 | 1038 | -0.12 | 0.903 |
| pro\_env\_framing - self\_enh\_framing | -0.14 | 0.15 | 1038 | -0.91 | 0.361 |

Confidence interval

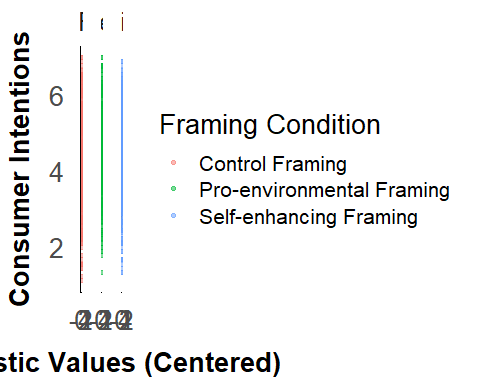
confint(alt\_frame\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | 0.12 | 0.14 | 1038 | -0.16 | 0.40 |
| control\_framing - self\_enh\_framing | -0.02 | 0.16 | 1038 | -0.33 | 0.29 |
| pro\_env\_framing - self\_enh\_framing | -0.14 | 0.15 | 1038 | -0.44 | 0.16 |

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ altruistic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Altruistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ altruistic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Altruistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + geom\_point(data = average\_df, aes(x = altruistic\_center, y = consumer\_intentions, color = framing\_condition), alpha = 0.5) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



### Altruistic x Norm x Framing

alt\_frame\_norm\_trends <- emtrends(mod\_mice, pairwise~norm\_condition | framing\_condition, var = "altruistic\_center", adjust = "none")  
  
alt\_frame\_norm\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | altruistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.18 | 0.20 | 1038 | -0.21 | 0.56 |
| descriptive\_norm | control\_framing | -0.13 | 0.24 | 1038 | -0.61 | 0.35 |
| convention\_norm | control\_framing | -0.40 | 0.23 | 1038 | -0.85 | 0.06 |
| social\_norm | control\_framing | 0.41 | 0.24 | 1038 | -0.05 | 0.87 |
| moral\_norm | control\_framing | 0.50 | 0.27 | 1038 | -0.02 | 1.03 |
| control\_norm | pro\_env\_framing | -0.01 | 0.25 | 1038 | -0.49 | 0.47 |
| descriptive\_norm | pro\_env\_framing | 0.02 | 0.23 | 1038 | -0.42 | 0.47 |
| convention\_norm | pro\_env\_framing | -0.04 | 0.21 | 1038 | -0.45 | 0.38 |
| social\_norm | pro\_env\_framing | -0.06 | 0.23 | 1038 | -0.51 | 0.39 |
| moral\_norm | pro\_env\_framing | 0.03 | 0.19 | 1038 | -0.33 | 0.40 |
| control\_norm | self\_enh\_framing | 0.20 | 0.34 | 1038 | -0.47 | 0.88 |
| descriptive\_norm | self\_enh\_framing | -0.28 | 0.21 | 1038 | -0.71 | 0.14 |
| convention\_norm | self\_enh\_framing | 0.28 | 0.24 | 1038 | -0.20 | 0.76 |
| social\_norm | self\_enh\_framing | -0.04 | 0.30 | 1038 | -0.62 | 0.54 |
| moral\_norm | self\_enh\_framing | 0.50 | 0.21 | 1038 | 0.09 | 0.91 |

alt\_frame\_norm\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

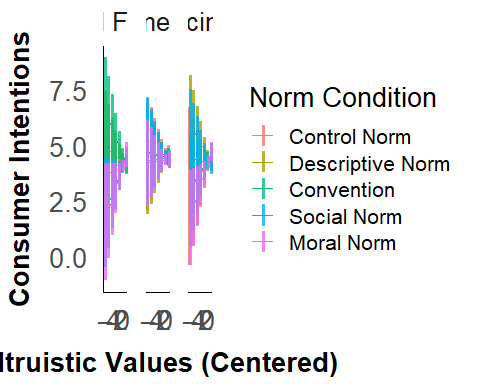
| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.31 | 0.31 | 1038 | 0.98 | 0.326 |
| control\_norm - convention\_norm | control\_framing | 0.57 | 0.30 | 1038 | 1.90 | 0.058 |
| control\_norm - social\_norm | control\_framing | -0.23 | 0.31 | 1038 | -0.76 | 0.446 |
| control\_norm - moral\_norm | control\_framing | -0.33 | 0.33 | 1038 | -0.99 | 0.321 |
| descriptive\_norm - convention\_norm | control\_framing | 0.27 | 0.34 | 1038 | 0.80 | 0.423 |
| descriptive\_norm - social\_norm | control\_framing | -0.54 | 0.34 | 1038 | -1.59 | 0.113 |
| descriptive\_norm - moral\_norm | control\_framing | -0.63 | 0.36 | 1038 | -1.76 | 0.079 |
| convention\_norm - social\_norm | control\_framing | -0.81 | 0.33 | 1038 | -2.45 | 0.014 |
| convention\_norm - moral\_norm | control\_framing | -0.90 | 0.35 | 1038 | -2.57 | 0.010 |
| social\_norm - moral\_norm | control\_framing | -0.09 | 0.36 | 1038 | -0.27 | 0.790 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.03 | 0.33 | 1038 | -0.09 | 0.927 |
| control\_norm - convention\_norm | pro\_env\_framing | 0.03 | 0.32 | 1038 | 0.10 | 0.924 |
| control\_norm - social\_norm | pro\_env\_framing | 0.05 | 0.33 | 1038 | 0.16 | 0.875 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.04 | 0.31 | 1038 | -0.13 | 0.897 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | 0.06 | 0.31 | 1038 | 0.20 | 0.843 |
| descriptive\_norm - social\_norm | pro\_env\_framing | 0.08 | 0.32 | 1038 | 0.26 | 0.796 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.01 | 0.29 | 1038 | -0.03 | 0.975 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.02 | 0.31 | 1038 | 0.07 | 0.944 |
| convention\_norm - moral\_norm | pro\_env\_framing | -0.07 | 0.28 | 1038 | -0.25 | 0.803 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.09 | 0.30 | 1038 | -0.31 | 0.754 |
| control\_norm - descriptive\_norm | self\_enh\_framing | 0.49 | 0.41 | 1038 | 1.20 | 0.231 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.08 | 0.42 | 1038 | -0.19 | 0.846 |
| control\_norm - social\_norm | self\_enh\_framing | 0.24 | 0.45 | 1038 | 0.54 | 0.592 |
| control\_norm - moral\_norm | self\_enh\_framing | -0.30 | 0.40 | 1038 | -0.75 | 0.454 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.57 | 0.32 | 1038 | -1.75 | 0.080 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.24 | 0.36 | 1038 | -0.67 | 0.502 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | -0.78 | 0.30 | 1038 | -2.60 | 0.009 |
| convention\_norm - social\_norm | self\_enh\_framing | 0.32 | 0.38 | 1038 | 0.85 | 0.397 |
| convention\_norm - moral\_norm | self\_enh\_framing | -0.22 | 0.32 | 1038 | -0.67 | 0.506 |
| social\_norm - moral\_norm | self\_enh\_framing | -0.54 | 0.36 | 1038 | -1.49 | 0.137 |

Confidence interval

confint(alt\_frame\_norm\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.31 | 0.31 | 1038 | -0.31 | 0.92 |
| control\_norm - convention\_norm | control\_framing | 0.57 | 0.30 | 1038 | -0.02 | 1.17 |
| control\_norm - social\_norm | control\_framing | -0.23 | 0.31 | 1038 | -0.83 | 0.37 |
| control\_norm - moral\_norm | control\_framing | -0.33 | 0.33 | 1038 | -0.97 | 0.32 |
| descriptive\_norm - convention\_norm | control\_framing | 0.27 | 0.34 | 1038 | -0.39 | 0.93 |
| descriptive\_norm - social\_norm | control\_framing | -0.54 | 0.34 | 1038 | -1.20 | 0.13 |
| descriptive\_norm - moral\_norm | control\_framing | -0.63 | 0.36 | 1038 | -1.34 | 0.07 |
| convention\_norm - social\_norm | control\_framing | -0.81 | 0.33 | 1038 | -1.45 | -0.16 |
| convention\_norm - moral\_norm | control\_framing | -0.90 | 0.35 | 1038 | -1.59 | -0.21 |
| social\_norm - moral\_norm | control\_framing | -0.09 | 0.36 | 1038 | -0.79 | 0.60 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.03 | 0.33 | 1038 | -0.69 | 0.62 |
| control\_norm - convention\_norm | pro\_env\_framing | 0.03 | 0.32 | 1038 | -0.60 | 0.66 |
| control\_norm - social\_norm | pro\_env\_framing | 0.05 | 0.33 | 1038 | -0.60 | 0.71 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.04 | 0.31 | 1038 | -0.64 | 0.56 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | 0.06 | 0.31 | 1038 | -0.55 | 0.67 |
| descriptive\_norm - social\_norm | pro\_env\_framing | 0.08 | 0.32 | 1038 | -0.55 | 0.72 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.01 | 0.29 | 1038 | -0.59 | 0.57 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.02 | 0.31 | 1038 | -0.59 | 0.63 |
| convention\_norm - moral\_norm | pro\_env\_framing | -0.07 | 0.28 | 1038 | -0.63 | 0.48 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.09 | 0.30 | 1038 | -0.67 | 0.49 |
| control\_norm - descriptive\_norm | self\_enh\_framing | 0.49 | 0.41 | 1038 | -0.31 | 1.29 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.08 | 0.42 | 1038 | -0.91 | 0.75 |
| control\_norm - social\_norm | self\_enh\_framing | 0.24 | 0.45 | 1038 | -0.65 | 1.13 |
| control\_norm - moral\_norm | self\_enh\_framing | -0.30 | 0.40 | 1038 | -1.07 | 0.48 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.57 | 0.32 | 1038 | -1.21 | 0.07 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.24 | 0.36 | 1038 | -0.96 | 0.47 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | -0.78 | 0.30 | 1038 | -1.38 | -0.19 |
| convention\_norm - social\_norm | self\_enh\_framing | 0.32 | 0.38 | 1038 | -0.43 | 1.08 |
| convention\_norm - moral\_norm | self\_enh\_framing | -0.22 | 0.32 | 1038 | -0.85 | 0.42 |
| social\_norm - moral\_norm | self\_enh\_framing | -0.54 | 0.36 | 1038 | -1.25 | 0.17 |

# without data overlaid  
emmip(mod\_mice, norm\_condition ~ altruistic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Altruistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



## Egoistic Values

### Ego x Norm

Is the slope of the relationship between egoistic values & consumer intentions stronger in any one of the norm conditions compared to the others?

ego\_norm\_slopes <- emtrends(mod\_mice, pairwise~norm\_condition, var = "egoistic\_center", adjust = "none")  
  
ego\_norm\_slopes$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | egoistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | -0.36 | 0.09 | 1038 | -0.54 | -0.19 |
| descriptive\_norm | -0.26 | 0.11 | 1038 | -0.47 | -0.06 |
| convention\_norm | -0.36 | 0.09 | 1038 | -0.53 | -0.19 |
| social\_norm | -0.26 | 0.09 | 1038 | -0.44 | -0.08 |
| moral\_norm | -0.24 | 0.09 | 1038 | -0.42 | -0.05 |

ego\_norm\_slopes$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3)) # correct p-values

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.10 | 0.14 | 1038 | -0.73 | 0.467 |
| control\_norm - convention\_norm | 0.00 | 0.12 | 1038 | -0.01 | 0.994 |
| control\_norm - social\_norm | -0.10 | 0.13 | 1038 | -0.80 | 0.422 |
| control\_norm - moral\_norm | -0.13 | 0.13 | 1038 | -0.98 | 0.327 |
| descriptive\_norm - convention\_norm | 0.10 | 0.13 | 1038 | 0.74 | 0.457 |
| descriptive\_norm - social\_norm | 0.00 | 0.14 | 1038 | -0.01 | 0.995 |
| descriptive\_norm - moral\_norm | -0.03 | 0.14 | 1038 | -0.19 | 0.850 |
| convention\_norm - social\_norm | -0.10 | 0.12 | 1038 | -0.82 | 0.414 |
| convention\_norm - moral\_norm | -0.13 | 0.13 | 1038 | -1.00 | 0.316 |
| social\_norm - moral\_norm | -0.03 | 0.13 | 1038 | -0.20 | 0.843 |

Confidence interval

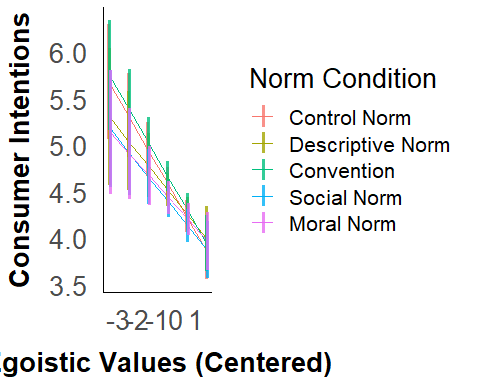
confint(ego\_norm\_slopes$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.10 | 0.14 | 1038 | -0.37 | 0.17 |
| control\_norm - convention\_norm | 0.00 | 0.12 | 1038 | -0.24 | 0.24 |
| control\_norm - social\_norm | -0.10 | 0.13 | 1038 | -0.35 | 0.15 |
| control\_norm - moral\_norm | -0.13 | 0.13 | 1038 | -0.38 | 0.13 |
| descriptive\_norm - convention\_norm | 0.10 | 0.13 | 1038 | -0.16 | 0.36 |
| descriptive\_norm - social\_norm | 0.00 | 0.14 | 1038 | -0.27 | 0.27 |
| descriptive\_norm - moral\_norm | -0.03 | 0.14 | 1038 | -0.30 | 0.25 |
| convention\_norm - social\_norm | -0.10 | 0.12 | 1038 | -0.34 | 0.14 |
| convention\_norm - moral\_norm | -0.13 | 0.13 | 1038 | -0.37 | 0.12 |
| social\_norm - moral\_norm | -0.03 | 0.13 | 1038 | -0.28 | 0.23 |

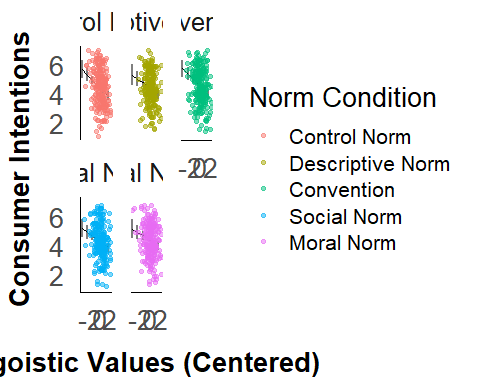
# On a single graph  
describe(average\_df$egoistic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.92 0 0.03 0.89 -3.4 2 5.4 -0.4 0.31 0.03

at\_list <- list(egoistic\_center = seq(-3.45, 2.05, by = 1))  
  
# without data overlaid  
emmip(mod\_mice, norm\_condition ~ egoistic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Egoistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ egoistic\_center | norm\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Egoistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + geom\_point(data = average\_df, aes(x = egoistic\_center, y = consumer\_intentions, color = norm\_condition), alpha = 0.5) + facet\_wrap(~norm\_condition, labeller = labeller(norm\_condition = norm\_labs)) +theme\_apa() + text\_settings



### Ego x Framing

Is the slope of the relationship between egoistic values & consumer intentions stronger in any one of the framing conditions compared to the others?

ego\_frame\_trends <- emtrends(mod\_mice, pairwise~framing\_condition, var = "egoistic\_center", adjust = "none")  
  
ego\_frame\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| framing\_condition | egoistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | -0.30 | 0.07 | 1038 | -0.44 | -0.15 |
| pro\_env\_framing | -0.27 | 0.07 | 1038 | -0.40 | -0.13 |
| self\_enh\_framing | -0.33 | 0.07 | 1038 | -0.47 | -0.18 |

ego\_frame\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

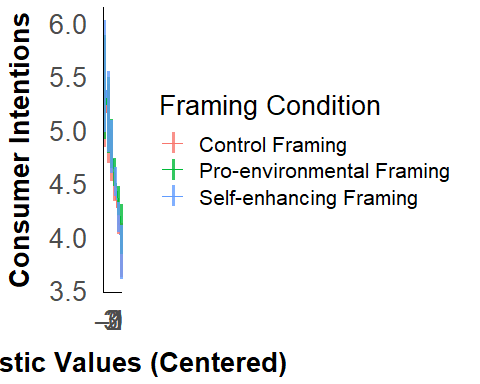
| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.03 | 0.1 | 1038 | -0.30 | 0.763 |
| control\_framing - self\_enh\_framing | 0.03 | 0.1 | 1038 | 0.33 | 0.745 |
| pro\_env\_framing - self\_enh\_framing | 0.06 | 0.1 | 1038 | 0.63 | 0.528 |

Confidence interval

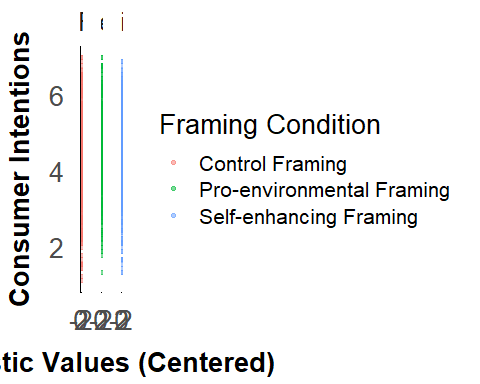
confint(ego\_frame\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.03 | 0.1 | 1038 | -0.23 | 0.17 |
| control\_framing - self\_enh\_framing | 0.03 | 0.1 | 1038 | -0.17 | 0.24 |
| pro\_env\_framing - self\_enh\_framing | 0.06 | 0.1 | 1038 | -0.13 | 0.26 |

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ egoistic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Egoistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ egoistic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Egoistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + geom\_point(data = average\_df, aes(x = egoistic\_center, y = consumer\_intentions, color = framing\_condition), alpha = 0.5) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



### Egoistic x Norm x Framing

ego\_frame\_norm\_trends <- emtrends(mod\_mice, pairwise~norm\_condition | framing\_condition, var = "egoistic\_center", adjust = "none")  
  
ego\_frame\_norm\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | egoistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | -0.24 | 0.15 | 1038 | -0.53 | 0.05 |
| descriptive\_norm | control\_framing | -0.28 | 0.18 | 1038 | -0.62 | 0.07 |
| convention\_norm | control\_framing | -0.44 | 0.15 | 1038 | -0.73 | -0.16 |
| social\_norm | control\_framing | -0.45 | 0.14 | 1038 | -0.73 | -0.17 |
| moral\_norm | control\_framing | -0.06 | 0.19 | 1038 | -0.44 | 0.31 |
| control\_norm | pro\_env\_framing | -0.52 | 0.14 | 1038 | -0.79 | -0.24 |
| descriptive\_norm | pro\_env\_framing | -0.24 | 0.16 | 1038 | -0.56 | 0.07 |
| convention\_norm | pro\_env\_framing | -0.11 | 0.16 | 1038 | -0.42 | 0.21 |
| social\_norm | pro\_env\_framing | -0.15 | 0.16 | 1038 | -0.46 | 0.16 |
| moral\_norm | pro\_env\_framing | -0.31 | 0.15 | 1038 | -0.60 | -0.02 |
| control\_norm | self\_enh\_framing | -0.33 | 0.17 | 1038 | -0.67 | 0.01 |
| descriptive\_norm | self\_enh\_framing | -0.27 | 0.21 | 1038 | -0.67 | 0.14 |
| convention\_norm | self\_enh\_framing | -0.54 | 0.13 | 1038 | -0.80 | -0.27 |
| social\_norm | self\_enh\_framing | -0.18 | 0.16 | 1038 | -0.50 | 0.14 |
| moral\_norm | self\_enh\_framing | -0.33 | 0.15 | 1038 | -0.62 | -0.05 |

ego\_frame\_norm\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

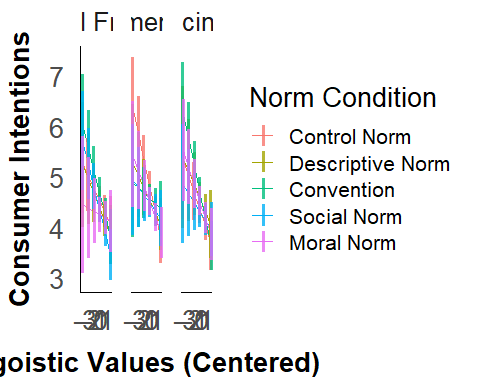
| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.03 | 0.23 | 1038 | 0.15 | 0.884 |
| control\_norm - convention\_norm | control\_framing | 0.20 | 0.21 | 1038 | 0.98 | 0.330 |
| control\_norm - social\_norm | control\_framing | 0.21 | 0.21 | 1038 | 1.01 | 0.313 |
| control\_norm - moral\_norm | control\_framing | -0.18 | 0.24 | 1038 | -0.74 | 0.462 |
| descriptive\_norm - convention\_norm | control\_framing | 0.17 | 0.23 | 1038 | 0.74 | 0.460 |
| descriptive\_norm - social\_norm | control\_framing | 0.17 | 0.23 | 1038 | 0.77 | 0.443 |
| descriptive\_norm - moral\_norm | control\_framing | -0.21 | 0.26 | 1038 | -0.82 | 0.415 |
| convention\_norm - social\_norm | control\_framing | 0.01 | 0.20 | 1038 | 0.03 | 0.979 |
| convention\_norm - moral\_norm | control\_framing | -0.38 | 0.24 | 1038 | -1.58 | 0.114 |
| social\_norm - moral\_norm | control\_framing | -0.39 | 0.24 | 1038 | -1.62 | 0.106 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.27 | 0.21 | 1038 | -1.28 | 0.201 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.41 | 0.21 | 1038 | -1.94 | 0.053 |
| control\_norm - social\_norm | pro\_env\_framing | -0.36 | 0.21 | 1038 | -1.73 | 0.085 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.21 | 0.20 | 1038 | -1.02 | 0.306 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.14 | 0.23 | 1038 | -0.61 | 0.539 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.09 | 0.22 | 1038 | -0.41 | 0.682 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | 0.06 | 0.22 | 1038 | 0.29 | 0.771 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.05 | 0.22 | 1038 | 0.21 | 0.834 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.20 | 0.22 | 1038 | 0.93 | 0.354 |
| social\_norm - moral\_norm | pro\_env\_framing | 0.16 | 0.22 | 1038 | 0.72 | 0.473 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.06 | 0.27 | 1038 | -0.23 | 0.815 |
| control\_norm - convention\_norm | self\_enh\_framing | 0.21 | 0.22 | 1038 | 0.93 | 0.351 |
| control\_norm - social\_norm | self\_enh\_framing | -0.15 | 0.24 | 1038 | -0.62 | 0.533 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.00 | 0.23 | 1038 | 0.02 | 0.986 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | 0.27 | 0.24 | 1038 | 1.11 | 0.267 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.08 | 0.26 | 1038 | -0.32 | 0.747 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.07 | 0.25 | 1038 | 0.27 | 0.784 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.35 | 0.21 | 1038 | -1.68 | 0.094 |
| convention\_norm - moral\_norm | self\_enh\_framing | -0.20 | 0.19 | 1038 | -1.04 | 0.301 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.15 | 0.22 | 1038 | 0.70 | 0.482 |

Confidence interval

confint(ego\_frame\_norm\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.03 | 0.23 | 1038 | -0.42 | 0.48 |
| control\_norm - convention\_norm | control\_framing | 0.20 | 0.21 | 1038 | -0.20 | 0.61 |
| control\_norm - social\_norm | control\_framing | 0.21 | 0.21 | 1038 | -0.20 | 0.61 |
| control\_norm - moral\_norm | control\_framing | -0.18 | 0.24 | 1038 | -0.65 | 0.30 |
| descriptive\_norm - convention\_norm | control\_framing | 0.17 | 0.23 | 1038 | -0.28 | 0.62 |
| descriptive\_norm - social\_norm | control\_framing | 0.17 | 0.23 | 1038 | -0.27 | 0.62 |
| descriptive\_norm - moral\_norm | control\_framing | -0.21 | 0.26 | 1038 | -0.72 | 0.30 |
| convention\_norm - social\_norm | control\_framing | 0.01 | 0.20 | 1038 | -0.40 | 0.41 |
| convention\_norm - moral\_norm | control\_framing | -0.38 | 0.24 | 1038 | -0.85 | 0.09 |
| social\_norm - moral\_norm | control\_framing | -0.39 | 0.24 | 1038 | -0.85 | 0.08 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.27 | 0.21 | 1038 | -0.69 | 0.14 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.41 | 0.21 | 1038 | -0.83 | 0.01 |
| control\_norm - social\_norm | pro\_env\_framing | -0.36 | 0.21 | 1038 | -0.78 | 0.05 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.21 | 0.20 | 1038 | -0.61 | 0.19 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.14 | 0.23 | 1038 | -0.58 | 0.30 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.09 | 0.22 | 1038 | -0.53 | 0.35 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | 0.06 | 0.22 | 1038 | -0.36 | 0.49 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.05 | 0.22 | 1038 | -0.39 | 0.49 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.20 | 0.22 | 1038 | -0.23 | 0.63 |
| social\_norm - moral\_norm | pro\_env\_framing | 0.16 | 0.22 | 1038 | -0.27 | 0.58 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.06 | 0.27 | 1038 | -0.60 | 0.47 |
| control\_norm - convention\_norm | self\_enh\_framing | 0.21 | 0.22 | 1038 | -0.23 | 0.64 |
| control\_norm - social\_norm | self\_enh\_framing | -0.15 | 0.24 | 1038 | -0.62 | 0.32 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.00 | 0.23 | 1038 | -0.44 | 0.45 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | 0.27 | 0.24 | 1038 | -0.21 | 0.75 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.08 | 0.26 | 1038 | -0.60 | 0.43 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.07 | 0.25 | 1038 | -0.42 | 0.56 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.35 | 0.21 | 1038 | -0.77 | 0.06 |
| convention\_norm - moral\_norm | self\_enh\_framing | -0.20 | 0.19 | 1038 | -0.58 | 0.18 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.15 | 0.22 | 1038 | -0.27 | 0.58 |

# without data overlaid  
emmip(mod\_mice, norm\_condition ~ egoistic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Egoistic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



## Hedonic Values

### Hedonic x Norm

Is the slope of the relationship between hedonic values & consumer intentions stronger in any one of the norm conditions compared to the others?

hed\_norm\_slopes <- emtrends(mod\_mice, pairwise~norm\_condition, var = "hedonic\_center", adjust = "none")  
  
hed\_norm\_slopes$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | hedonic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | -0.08 | 0.13 | 1038 | -0.33 | 0.17 |
| descriptive\_norm | -0.05 | 0.13 | 1038 | -0.30 | 0.21 |
| convention\_norm | 0.12 | 0.11 | 1038 | -0.10 | 0.35 |
| social\_norm | -0.18 | 0.12 | 1038 | -0.42 | 0.06 |
| moral\_norm | -0.28 | 0.11 | 1038 | -0.49 | -0.06 |

hed\_norm\_slopes$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3)) # correct p-values

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.04 | 0.18 | 1038 | -0.20 | 0.844 |
| control\_norm - convention\_norm | -0.21 | 0.17 | 1038 | -1.22 | 0.224 |
| control\_norm - social\_norm | 0.10 | 0.18 | 1038 | 0.54 | 0.587 |
| control\_norm - moral\_norm | 0.19 | 0.17 | 1038 | 1.17 | 0.243 |
| descriptive\_norm - convention\_norm | -0.17 | 0.17 | 1038 | -0.99 | 0.321 |
| descriptive\_norm - social\_norm | 0.13 | 0.18 | 1038 | 0.73 | 0.463 |
| descriptive\_norm - moral\_norm | 0.23 | 0.17 | 1038 | 1.35 | 0.176 |
| convention\_norm - social\_norm | 0.30 | 0.17 | 1038 | 1.81 | 0.070 |
| convention\_norm - moral\_norm | 0.40 | 0.16 | 1038 | 2.54 | 0.011 |
| social\_norm - moral\_norm | 0.10 | 0.16 | 1038 | 0.60 | 0.546 |

Confidence interval

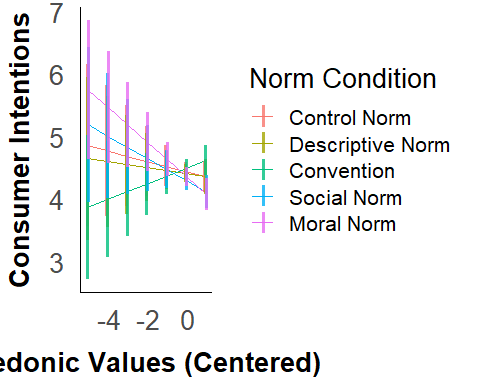
confint(hed\_norm\_slopes$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.04 | 0.18 | 1038 | -0.39 | 0.32 |
| control\_norm - convention\_norm | -0.21 | 0.17 | 1038 | -0.54 | 0.13 |
| control\_norm - social\_norm | 0.10 | 0.18 | 1038 | -0.25 | 0.44 |
| control\_norm - moral\_norm | 0.19 | 0.17 | 1038 | -0.13 | 0.52 |
| descriptive\_norm - convention\_norm | -0.17 | 0.17 | 1038 | -0.51 | 0.17 |
| descriptive\_norm - social\_norm | 0.13 | 0.18 | 1038 | -0.22 | 0.48 |
| descriptive\_norm - moral\_norm | 0.23 | 0.17 | 1038 | -0.10 | 0.56 |
| convention\_norm - social\_norm | 0.30 | 0.17 | 1038 | -0.03 | 0.63 |
| convention\_norm - moral\_norm | 0.40 | 0.16 | 1038 | 0.09 | 0.71 |
| social\_norm - moral\_norm | 0.10 | 0.16 | 1038 | -0.22 | 0.42 |

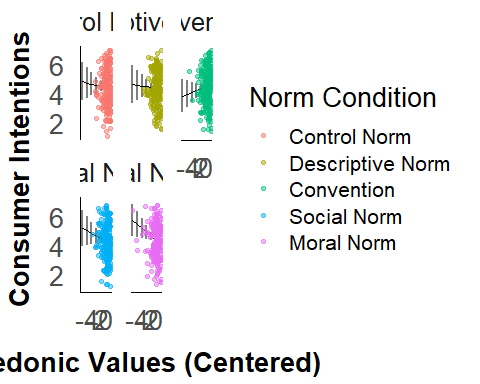
# On a single graph  
describe(average\_df$hedonic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.79 0.28 0.09 0.49 -5.05 0.95 6 -1.45 3.69 0.02

at\_list <- list(hedonic\_center = seq(-5.1, 1, by = 1))  
  
# without data overlaid  
emmip(mod\_mice, norm\_condition ~ hedonic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Hedonic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ hedonic\_center | norm\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Hedonic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + geom\_point(data = average\_df, aes(x = hedonic\_center, y = consumer\_intentions, color = norm\_condition), alpha = 0.5) + facet\_wrap(~norm\_condition, labeller = labeller(norm\_condition = norm\_labs)) +theme\_apa() + text\_settings



### Hedonic x Framing

Is the slope of the relationship between hedonic values & consumer intentions stronger in any one of the framing conditions compared to the others?

hed\_frame\_trends <- emtrends(mod\_mice, pairwise~framing\_condition, var = "hedonic\_center", adjust = "none")  
  
hed\_frame\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| framing\_condition | hedonic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | -0.15 | 0.09 | 1038 | -0.33 | 0.03 |
| pro\_env\_framing | 0.01 | 0.09 | 1038 | -0.17 | 0.19 |
| self\_enh\_framing | -0.14 | 0.10 | 1038 | -0.33 | 0.05 |

hed\_frame\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

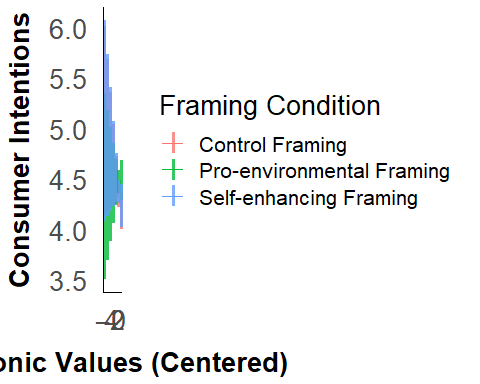
| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.16 | 0.13 | 1038 | -1.22 | 0.223 |
| control\_framing - self\_enh\_framing | -0.01 | 0.13 | 1038 | -0.06 | 0.955 |
| pro\_env\_framing - self\_enh\_framing | 0.15 | 0.13 | 1038 | 1.12 | 0.264 |

Confidence interval

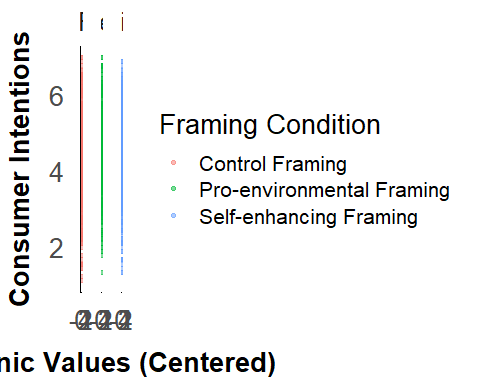
confint(hed\_frame\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | -0.16 | 0.13 | 1038 | -0.41 | 0.10 |
| control\_framing - self\_enh\_framing | -0.01 | 0.13 | 1038 | -0.27 | 0.26 |
| pro\_env\_framing - self\_enh\_framing | 0.15 | 0.13 | 1038 | -0.11 | 0.41 |

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ hedonic\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Hedonic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ hedonic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Hedonic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + geom\_point(data = average\_df, aes(x = hedonic\_center, y = consumer\_intentions, color = framing\_condition), alpha = 0.5) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



### Hedonic x Norm x Framing

hed\_frame\_norm\_trends <- emtrends(mod\_mice, pairwise~norm\_condition | framing\_condition, var = "hedonic\_center", adjust = "none")  
  
hed\_frame\_norm\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | hedonic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | -0.34 | 0.18 | 1038 | -0.70 | 0.02 |
| descriptive\_norm | control\_framing | -0.14 | 0.22 | 1038 | -0.57 | 0.29 |
| convention\_norm | control\_framing | 0.15 | 0.21 | 1038 | -0.27 | 0.57 |
| social\_norm | control\_framing | -0.05 | 0.19 | 1038 | -0.42 | 0.32 |
| moral\_norm | control\_framing | -0.36 | 0.22 | 1038 | -0.79 | 0.06 |
| control\_norm | pro\_env\_framing | 0.15 | 0.21 | 1038 | -0.27 | 0.57 |
| descriptive\_norm | pro\_env\_framing | -0.12 | 0.22 | 1038 | -0.54 | 0.31 |
| convention\_norm | pro\_env\_framing | 0.20 | 0.20 | 1038 | -0.20 | 0.60 |
| social\_norm | pro\_env\_framing | -0.11 | 0.19 | 1038 | -0.49 | 0.27 |
| moral\_norm | pro\_env\_framing | -0.08 | 0.18 | 1038 | -0.44 | 0.28 |
| control\_norm | self\_enh\_framing | -0.06 | 0.25 | 1038 | -0.56 | 0.44 |
| descriptive\_norm | self\_enh\_framing | 0.12 | 0.24 | 1038 | -0.36 | 0.59 |
| convention\_norm | self\_enh\_framing | 0.02 | 0.17 | 1038 | -0.32 | 0.35 |
| social\_norm | self\_enh\_framing | -0.38 | 0.25 | 1038 | -0.87 | 0.10 |
| moral\_norm | self\_enh\_framing | -0.39 | 0.17 | 1038 | -0.72 | -0.06 |

hed\_frame\_norm\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

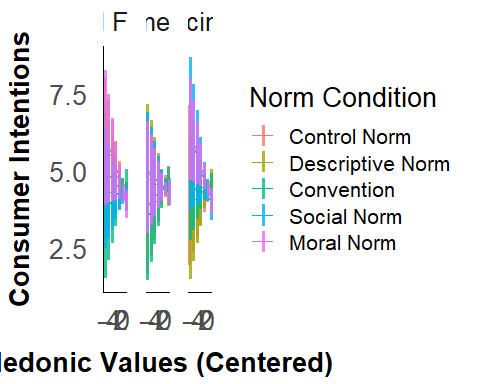
| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | -0.19 | 0.28 | 1038 | -0.68 | 0.495 |
| control\_norm - convention\_norm | control\_framing | -0.49 | 0.28 | 1038 | -1.74 | 0.082 |
| control\_norm - social\_norm | control\_framing | -0.29 | 0.26 | 1038 | -1.11 | 0.269 |
| control\_norm - moral\_norm | control\_framing | 0.03 | 0.28 | 1038 | 0.09 | 0.927 |
| descriptive\_norm - convention\_norm | control\_framing | -0.30 | 0.31 | 1038 | -0.97 | 0.335 |
| descriptive\_norm - social\_norm | control\_framing | -0.10 | 0.29 | 1038 | -0.34 | 0.738 |
| descriptive\_norm - moral\_norm | control\_framing | 0.22 | 0.31 | 1038 | 0.72 | 0.473 |
| convention\_norm - social\_norm | control\_framing | 0.20 | 0.29 | 1038 | 0.69 | 0.488 |
| convention\_norm - moral\_norm | control\_framing | 0.52 | 0.30 | 1038 | 1.70 | 0.090 |
| social\_norm - moral\_norm | control\_framing | 0.32 | 0.29 | 1038 | 1.11 | 0.267 |
| control\_norm - descriptive\_norm | pro\_env\_framing | 0.26 | 0.31 | 1038 | 0.86 | 0.390 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.06 | 0.30 | 1038 | -0.19 | 0.851 |
| control\_norm - social\_norm | pro\_env\_framing | 0.25 | 0.29 | 1038 | 0.88 | 0.380 |
| control\_norm - moral\_norm | pro\_env\_framing | 0.23 | 0.28 | 1038 | 0.81 | 0.416 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.32 | 0.30 | 1038 | -1.07 | 0.286 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.01 | 0.29 | 1038 | -0.03 | 0.976 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.03 | 0.28 | 1038 | -0.12 | 0.906 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.31 | 0.28 | 1038 | 1.10 | 0.271 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.28 | 0.27 | 1038 | 1.04 | 0.298 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.02 | 0.27 | 1038 | -0.09 | 0.925 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.18 | 0.35 | 1038 | -0.50 | 0.617 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.08 | 0.31 | 1038 | -0.25 | 0.804 |
| control\_norm - social\_norm | self\_enh\_framing | 0.32 | 0.35 | 1038 | 0.92 | 0.360 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.33 | 0.30 | 1038 | 1.09 | 0.276 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | 0.10 | 0.29 | 1038 | 0.34 | 0.736 |
| descriptive\_norm - social\_norm | self\_enh\_framing | 0.50 | 0.35 | 1038 | 1.45 | 0.148 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.50 | 0.29 | 1038 | 1.72 | 0.085 |
| convention\_norm - social\_norm | self\_enh\_framing | 0.40 | 0.30 | 1038 | 1.34 | 0.182 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.41 | 0.24 | 1038 | 1.69 | 0.092 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.00 | 0.30 | 1038 | 0.02 | 0.987 |

Confidence interval

confint(hed\_frame\_norm\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | -0.19 | 0.28 | 1038 | -0.75 | 0.36 |
| control\_norm - convention\_norm | control\_framing | -0.49 | 0.28 | 1038 | -1.04 | 0.06 |
| control\_norm - social\_norm | control\_framing | -0.29 | 0.26 | 1038 | -0.81 | 0.23 |
| control\_norm - moral\_norm | control\_framing | 0.03 | 0.28 | 1038 | -0.53 | 0.58 |
| descriptive\_norm - convention\_norm | control\_framing | -0.30 | 0.31 | 1038 | -0.90 | 0.30 |
| descriptive\_norm - social\_norm | control\_framing | -0.10 | 0.29 | 1038 | -0.66 | 0.47 |
| descriptive\_norm - moral\_norm | control\_framing | 0.22 | 0.31 | 1038 | -0.38 | 0.82 |
| convention\_norm - social\_norm | control\_framing | 0.20 | 0.29 | 1038 | -0.36 | 0.76 |
| convention\_norm - moral\_norm | control\_framing | 0.52 | 0.30 | 1038 | -0.08 | 1.11 |
| social\_norm - moral\_norm | control\_framing | 0.32 | 0.29 | 1038 | -0.24 | 0.88 |
| control\_norm - descriptive\_norm | pro\_env\_framing | 0.26 | 0.31 | 1038 | -0.34 | 0.86 |
| control\_norm - convention\_norm | pro\_env\_framing | -0.06 | 0.30 | 1038 | -0.63 | 0.52 |
| control\_norm - social\_norm | pro\_env\_framing | 0.25 | 0.29 | 1038 | -0.31 | 0.82 |
| control\_norm - moral\_norm | pro\_env\_framing | 0.23 | 0.28 | 1038 | -0.32 | 0.78 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | -0.32 | 0.30 | 1038 | -0.90 | 0.27 |
| descriptive\_norm - social\_norm | pro\_env\_framing | -0.01 | 0.29 | 1038 | -0.58 | 0.56 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | -0.03 | 0.28 | 1038 | -0.59 | 0.52 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.31 | 0.28 | 1038 | -0.24 | 0.86 |
| convention\_norm - moral\_norm | pro\_env\_framing | 0.28 | 0.27 | 1038 | -0.25 | 0.82 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.02 | 0.27 | 1038 | -0.55 | 0.50 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.18 | 0.35 | 1038 | -0.86 | 0.51 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.08 | 0.31 | 1038 | -0.68 | 0.53 |
| control\_norm - social\_norm | self\_enh\_framing | 0.32 | 0.35 | 1038 | -0.37 | 1.02 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.33 | 0.30 | 1038 | -0.26 | 0.92 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | 0.10 | 0.29 | 1038 | -0.48 | 0.68 |
| descriptive\_norm - social\_norm | self\_enh\_framing | 0.50 | 0.35 | 1038 | -0.18 | 1.18 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.50 | 0.29 | 1038 | -0.07 | 1.08 |
| convention\_norm - social\_norm | self\_enh\_framing | 0.40 | 0.30 | 1038 | -0.19 | 0.99 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.41 | 0.24 | 1038 | -0.07 | 0.88 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.00 | 0.30 | 1038 | -0.58 | 0.59 |

# without data overlaid  
emmip(mod\_mice, norm\_condition ~ hedonic\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Hedonic Values (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



## Three-Way Values Interactions

H4: There will be a three-way interaction between values (biospheric, egoistic, altruistic, hedonic), framing condition, & norm condition such that when a pro-environmental or control framing is used, values will moderate the effect of each norm condition, but not when a self-enhancing framing is used.

### Simples Slopes for Values across Norm and Framing Conditions

bio\_slopes <- emtrends(mod\_mice, ~norm\_condition\*framing\_condition, var = "biospheric\_center", adjust = "none")  
  
bio\_slopes %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | biospheric\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.57 | 0.16 | 1038 | 0.26 | 0.88 |
| descriptive\_norm | control\_framing | 0.47 | 0.19 | 1038 | 0.08 | 0.85 |
| convention\_norm | control\_framing | 0.83 | 0.19 | 1038 | 0.46 | 1.20 |
| social\_norm | control\_framing | 0.04 | 0.16 | 1038 | -0.28 | 0.36 |
| moral\_norm | control\_framing | -0.08 | 0.24 | 1038 | -0.55 | 0.39 |
| control\_norm | pro\_env\_framing | 0.27 | 0.16 | 1038 | -0.04 | 0.58 |
| descriptive\_norm | pro\_env\_framing | 0.18 | 0.16 | 1038 | -0.14 | 0.49 |
| convention\_norm | pro\_env\_framing | 0.68 | 0.16 | 1038 | 0.36 | 1.00 |
| social\_norm | pro\_env\_framing | 0.35 | 0.14 | 1038 | 0.07 | 0.64 |
| moral\_norm | pro\_env\_framing | 0.54 | 0.15 | 1038 | 0.25 | 0.83 |
| control\_norm | self\_enh\_framing | 0.50 | 0.19 | 1038 | 0.13 | 0.87 |
| descriptive\_norm | self\_enh\_framing | 0.28 | 0.18 | 1038 | -0.08 | 0.63 |
| convention\_norm | self\_enh\_framing | 0.32 | 0.18 | 1038 | -0.04 | 0.68 |
| social\_norm | self\_enh\_framing | 0.38 | 0.21 | 1038 | -0.03 | 0.78 |
| moral\_norm | self\_enh\_framing | 0.11 | 0.20 | 1038 | -0.29 | 0.51 |

alt\_slopes <- emtrends(mod\_mice, ~norm\_condition\*framing\_condition, var = "altruistic\_center", adjust = "none")  
  
alt\_slopes %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | altruistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.18 | 0.20 | 1038 | -0.21 | 0.56 |
| descriptive\_norm | control\_framing | -0.13 | 0.24 | 1038 | -0.61 | 0.35 |
| convention\_norm | control\_framing | -0.40 | 0.23 | 1038 | -0.85 | 0.06 |
| social\_norm | control\_framing | 0.41 | 0.24 | 1038 | -0.05 | 0.87 |
| moral\_norm | control\_framing | 0.50 | 0.27 | 1038 | -0.02 | 1.03 |
| control\_norm | pro\_env\_framing | -0.01 | 0.25 | 1038 | -0.49 | 0.47 |
| descriptive\_norm | pro\_env\_framing | 0.02 | 0.23 | 1038 | -0.42 | 0.47 |
| convention\_norm | pro\_env\_framing | -0.04 | 0.21 | 1038 | -0.45 | 0.38 |
| social\_norm | pro\_env\_framing | -0.06 | 0.23 | 1038 | -0.51 | 0.39 |
| moral\_norm | pro\_env\_framing | 0.03 | 0.19 | 1038 | -0.33 | 0.40 |
| control\_norm | self\_enh\_framing | 0.20 | 0.34 | 1038 | -0.47 | 0.88 |
| descriptive\_norm | self\_enh\_framing | -0.28 | 0.21 | 1038 | -0.71 | 0.14 |
| convention\_norm | self\_enh\_framing | 0.28 | 0.24 | 1038 | -0.20 | 0.76 |
| social\_norm | self\_enh\_framing | -0.04 | 0.30 | 1038 | -0.62 | 0.54 |
| moral\_norm | self\_enh\_framing | 0.50 | 0.21 | 1038 | 0.09 | 0.91 |

ego\_slopes <- emtrends(mod\_mice, ~norm\_condition\*framing\_condition, var = "egoistic\_center", adjust = "none")  
  
ego\_slopes %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | egoistic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | -0.24 | 0.15 | 1038 | -0.53 | 0.05 |
| descriptive\_norm | control\_framing | -0.28 | 0.18 | 1038 | -0.62 | 0.07 |
| convention\_norm | control\_framing | -0.44 | 0.15 | 1038 | -0.73 | -0.16 |
| social\_norm | control\_framing | -0.45 | 0.14 | 1038 | -0.73 | -0.17 |
| moral\_norm | control\_framing | -0.06 | 0.19 | 1038 | -0.44 | 0.31 |
| control\_norm | pro\_env\_framing | -0.52 | 0.14 | 1038 | -0.79 | -0.24 |
| descriptive\_norm | pro\_env\_framing | -0.24 | 0.16 | 1038 | -0.56 | 0.07 |
| convention\_norm | pro\_env\_framing | -0.11 | 0.16 | 1038 | -0.42 | 0.21 |
| social\_norm | pro\_env\_framing | -0.15 | 0.16 | 1038 | -0.46 | 0.16 |
| moral\_norm | pro\_env\_framing | -0.31 | 0.15 | 1038 | -0.60 | -0.02 |
| control\_norm | self\_enh\_framing | -0.33 | 0.17 | 1038 | -0.67 | 0.01 |
| descriptive\_norm | self\_enh\_framing | -0.27 | 0.21 | 1038 | -0.67 | 0.14 |
| convention\_norm | self\_enh\_framing | -0.54 | 0.13 | 1038 | -0.80 | -0.27 |
| social\_norm | self\_enh\_framing | -0.18 | 0.16 | 1038 | -0.50 | 0.14 |
| moral\_norm | self\_enh\_framing | -0.33 | 0.15 | 1038 | -0.62 | -0.05 |

hed\_slopes <- emtrends(mod\_mice, ~norm\_condition\*framing\_condition, var = "hedonic\_center", adjust = "none")  
  
hed\_slopes %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | hedonic\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | -0.34 | 0.18 | 1038 | -0.70 | 0.02 |
| descriptive\_norm | control\_framing | -0.14 | 0.22 | 1038 | -0.57 | 0.29 |
| convention\_norm | control\_framing | 0.15 | 0.21 | 1038 | -0.27 | 0.57 |
| social\_norm | control\_framing | -0.05 | 0.19 | 1038 | -0.42 | 0.32 |
| moral\_norm | control\_framing | -0.36 | 0.22 | 1038 | -0.79 | 0.06 |
| control\_norm | pro\_env\_framing | 0.15 | 0.21 | 1038 | -0.27 | 0.57 |
| descriptive\_norm | pro\_env\_framing | -0.12 | 0.22 | 1038 | -0.54 | 0.31 |
| convention\_norm | pro\_env\_framing | 0.20 | 0.20 | 1038 | -0.20 | 0.60 |
| social\_norm | pro\_env\_framing | -0.11 | 0.19 | 1038 | -0.49 | 0.27 |
| moral\_norm | pro\_env\_framing | -0.08 | 0.18 | 1038 | -0.44 | 0.28 |
| control\_norm | self\_enh\_framing | -0.06 | 0.25 | 1038 | -0.56 | 0.44 |
| descriptive\_norm | self\_enh\_framing | 0.12 | 0.24 | 1038 | -0.36 | 0.59 |
| convention\_norm | self\_enh\_framing | 0.02 | 0.17 | 1038 | -0.32 | 0.35 |
| social\_norm | self\_enh\_framing | -0.38 | 0.25 | 1038 | -0.87 | 0.10 |
| moral\_norm | self\_enh\_framing | -0.39 | 0.17 | 1038 | -0.72 | -0.06 |

Ingroup identification

ing\_slopes <- emtrends(mod\_mice, ~norm\_condition\*framing\_condition, var = "ingroup\_center", adjust = "none")  
  
ing\_slopes %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | ingroup\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.18 | 0.12 | 1038 | -0.05 | 0.41 |
| descriptive\_norm | control\_framing | -0.01 | 0.15 | 1038 | -0.31 | 0.28 |
| convention\_norm | control\_framing | -0.10 | 0.13 | 1038 | -0.36 | 0.16 |
| social\_norm | control\_framing | 0.01 | 0.11 | 1038 | -0.21 | 0.22 |
| moral\_norm | control\_framing | 0.10 | 0.12 | 1038 | -0.13 | 0.33 |
| control\_norm | pro\_env\_framing | -0.01 | 0.13 | 1038 | -0.26 | 0.25 |
| descriptive\_norm | pro\_env\_framing | 0.06 | 0.13 | 1038 | -0.20 | 0.31 |
| convention\_norm | pro\_env\_framing | -0.07 | 0.12 | 1038 | -0.32 | 0.17 |
| social\_norm | pro\_env\_framing | -0.07 | 0.13 | 1038 | -0.33 | 0.19 |
| moral\_norm | pro\_env\_framing | 0.04 | 0.13 | 1038 | -0.22 | 0.29 |
| control\_norm | self\_enh\_framing | -0.05 | 0.13 | 1038 | -0.29 | 0.20 |
| descriptive\_norm | self\_enh\_framing | 0.13 | 0.12 | 1038 | -0.10 | 0.36 |
| convention\_norm | self\_enh\_framing | 0.22 | 0.14 | 1038 | -0.07 | 0.50 |
| social\_norm | self\_enh\_framing | 0.23 | 0.15 | 1038 | -0.06 | 0.51 |
| moral\_norm | self\_enh\_framing | -0.23 | 0.13 | 1038 | -0.49 | 0.03 |

#### Biospheric values

describe(average\_df$biospheric\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.99 0.15 0.12 1.11 -4.85 1.15 6 -1.1 1.59 0.03

sd(average\_df$biospheric\_center)

## [1] 0.9922987

sd\_below <- mean(average\_df$biospheric\_center) - sd(average\_df$biospheric\_center)  
sd\_above <- mean(average\_df$biospheric\_center) + sd(average\_df$biospheric\_center)  
  
  
# Control vs Descriptive Norm  
atlist <- list(biospheric\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "descriptive\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*biospheric\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | biospheric\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.99 | control\_framing | 3.89 | 0.20 | 1038 | 3.50 | 4.28 |
| descriptive\_norm | -0.99 | control\_framing | 3.83 | 0.23 | 1038 | 3.37 | 4.29 |
| control\_norm | 0.99 | control\_framing | 5.01 | 0.20 | 1038 | 4.62 | 5.40 |
| descriptive\_norm | 0.99 | control\_framing | 4.75 | 0.24 | 1038 | 4.29 | 5.22 |
| control\_norm | -0.99 | pro\_env\_framing | 4.34 | 0.19 | 1038 | 3.97 | 4.72 |
| descriptive\_norm | -0.99 | pro\_env\_framing | 4.27 | 0.20 | 1038 | 3.88 | 4.66 |
| control\_norm | 0.99 | pro\_env\_framing | 4.88 | 0.21 | 1038 | 4.46 | 5.30 |
| descriptive\_norm | 0.99 | pro\_env\_framing | 4.62 | 0.21 | 1038 | 4.21 | 5.02 |
| control\_norm | -0.99 | self\_enh\_framing | 3.74 | 0.22 | 1038 | 3.31 | 4.17 |
| descriptive\_norm | -0.99 | self\_enh\_framing | 4.20 | 0.23 | 1038 | 3.75 | 4.64 |
| control\_norm | 0.99 | self\_enh\_framing | 4.73 | 0.23 | 1038 | 4.28 | 5.18 |
| descriptive\_norm | 0.99 | self\_enh\_framing | 4.75 | 0.21 | 1038 | 4.34 | 5.16 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm biospheric\_center-0.992298742865129) - (descriptive\_norm biospheric\_center-0.992298742865129) | control\_framing | 0.06 | 0.31 | 1038 | 0.19 | 0.853 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | -1.13 | 0.31 | 1038 | -3.61 | 0.000 |
| (control\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | control\_framing | -0.87 | 0.31 | 1038 | -2.81 | 0.005 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | -1.18 | 0.31 | 1038 | -3.86 | 0.000 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | control\_framing | -0.92 | 0.39 | 1038 | -2.39 | 0.017 |
| control\_norm biospheric\_center0.992298742865129 - descriptive\_norm biospheric\_center0.992298742865129 | control\_framing | 0.26 | 0.31 | 1038 | 0.84 | 0.403 |
| (control\_norm biospheric\_center-0.992298742865129) - (descriptive\_norm biospheric\_center-0.992298742865129) | pro\_env\_framing | 0.08 | 0.28 | 1038 | 0.27 | 0.785 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | -0.54 | 0.32 | 1038 | -1.70 | 0.090 |
| (control\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | -0.27 | 0.28 | 1038 | -0.96 | 0.336 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | -0.61 | 0.29 | 1038 | -2.09 | 0.037 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | -0.35 | 0.32 | 1038 | -1.10 | 0.271 |
| control\_norm biospheric\_center0.992298742865129 - descriptive\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | 0.26 | 0.30 | 1038 | 0.89 | 0.375 |
| (control\_norm biospheric\_center-0.992298742865129) - (descriptive\_norm biospheric\_center-0.992298742865129) | self\_enh\_framing | -0.46 | 0.32 | 1038 | -1.44 | 0.150 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | -0.99 | 0.37 | 1038 | -2.67 | 0.008 |
| (control\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | -1.01 | 0.30 | 1038 | -3.39 | 0.001 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | -0.53 | 0.32 | 1038 | -1.66 | 0.097 |
| (descriptive\_norm biospheric\_center-0.992298742865129) - descriptive\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | -0.55 | 0.36 | 1038 | -1.53 | 0.127 |
| control\_norm biospheric\_center0.992298742865129 - descriptive\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | -0.02 | 0.31 | 1038 | -0.05 | 0.958 |

# Control vs Convention  
atlist <- list(biospheric\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "convention\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*biospheric\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | biospheric\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.99 | control\_framing | 3.89 | 0.20 | 1038 | 3.50 | 4.28 |
| convention\_norm | -0.99 | control\_framing | 3.68 | 0.22 | 1038 | 3.25 | 4.10 |
| control\_norm | 0.99 | control\_framing | 5.01 | 0.20 | 1038 | 4.62 | 5.40 |
| convention\_norm | 0.99 | control\_framing | 5.32 | 0.24 | 1038 | 4.85 | 5.80 |
| control\_norm | -0.99 | pro\_env\_framing | 4.34 | 0.19 | 1038 | 3.97 | 4.72 |
| convention\_norm | -0.99 | pro\_env\_framing | 3.86 | 0.21 | 1038 | 3.46 | 4.26 |
| control\_norm | 0.99 | pro\_env\_framing | 4.88 | 0.21 | 1038 | 4.46 | 5.30 |
| convention\_norm | 0.99 | pro\_env\_framing | 5.21 | 0.20 | 1038 | 4.83 | 5.60 |
| control\_norm | -0.99 | self\_enh\_framing | 3.74 | 0.22 | 1038 | 3.31 | 4.17 |
| convention\_norm | -0.99 | self\_enh\_framing | 4.15 | 0.22 | 1038 | 3.72 | 4.58 |
| control\_norm | 0.99 | self\_enh\_framing | 4.73 | 0.23 | 1038 | 4.28 | 5.18 |
| convention\_norm | 0.99 | self\_enh\_framing | 4.79 | 0.23 | 1038 | 4.34 | 5.23 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm biospheric\_center-0.992298742865129) - (convention\_norm biospheric\_center-0.992298742865129) | control\_framing | NA | 0.29 | 1038 | 0.71 | 0.48 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.31 | 1038 | -3.61 | 0.00 |
| (control\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.31 | 1038 | -4.59 | 0.00 |
| (convention\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.30 | 1038 | -4.52 | 0.00 |
| (convention\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.37 | 1038 | -4.44 | 0.00 |
| control\_norm biospheric\_center0.992298742865129 - convention\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.31 | 1038 | -0.99 | 0.32 |
| (control\_norm biospheric\_center-0.992298742865129) - (convention\_norm biospheric\_center-0.992298742865129) | pro\_env\_framing | NA | 0.28 | 1038 | 1.72 | 0.09 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.32 | 1038 | -1.70 | 0.09 |
| (control\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.27 | 1038 | -3.17 | 0.00 |
| (convention\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.30 | 1038 | -3.44 | 0.00 |
| (convention\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.33 | 1038 | -4.16 | 0.00 |
| control\_norm biospheric\_center0.992298742865129 - convention\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.29 | 1038 | -1.16 | 0.25 |
| (control\_norm biospheric\_center-0.992298742865129) - (convention\_norm biospheric\_center-0.992298742865129) | self\_enh\_framing | NA | 0.31 | 1038 | -1.33 | 0.18 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.37 | 1038 | -2.67 | 0.01 |
| (control\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.32 | 1038 | -3.32 | 0.00 |
| (convention\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.32 | 1038 | -1.83 | 0.07 |
| (convention\_norm biospheric\_center-0.992298742865129) - convention\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.36 | 1038 | -1.75 | 0.08 |
| control\_norm biospheric\_center0.992298742865129 - convention\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.32 | 1038 | -0.17 | 0.87 |

# Control vs Social Norm  
atlist <- list(biospheric\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "social\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*biospheric\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | biospheric\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.99 | control\_framing | 3.89 | 0.20 | 1038 | 3.50 | 4.28 |
| social\_norm | -0.99 | control\_framing | 4.12 | 0.20 | 1038 | 3.73 | 4.51 |
| control\_norm | 0.99 | control\_framing | 5.01 | 0.20 | 1038 | 4.62 | 5.40 |
| social\_norm | 0.99 | control\_framing | 4.20 | 0.20 | 1038 | 3.80 | 4.60 |
| control\_norm | -0.99 | pro\_env\_framing | 4.34 | 0.19 | 1038 | 3.97 | 4.72 |
| social\_norm | -0.99 | pro\_env\_framing | 4.07 | 0.18 | 1038 | 3.72 | 4.42 |
| control\_norm | 0.99 | pro\_env\_framing | 4.88 | 0.21 | 1038 | 4.46 | 5.30 |
| social\_norm | 0.99 | pro\_env\_framing | 4.77 | 0.21 | 1038 | 4.36 | 5.19 |
| control\_norm | -0.99 | self\_enh\_framing | 3.74 | 0.22 | 1038 | 3.31 | 4.17 |
| social\_norm | -0.99 | self\_enh\_framing | 3.87 | 0.24 | 1038 | 3.41 | 4.33 |
| control\_norm | 0.99 | self\_enh\_framing | 4.73 | 0.23 | 1038 | 4.28 | 5.18 |
| social\_norm | 0.99 | self\_enh\_framing | 4.62 | 0.26 | 1038 | 4.11 | 5.13 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm biospheric\_center-0.992298742865129) - (social\_norm biospheric\_center-0.992298742865129) | control\_framing | NA | 0.28 | 1038 | -0.83 | 0.41 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.31 | 1038 | -3.61 | 0.00 |
| (control\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.28 | 1038 | -1.11 | 0.27 |
| (social\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.28 | 1038 | -3.17 | 0.00 |
| (social\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.33 | 1038 | -0.25 | 0.80 |
| control\_norm biospheric\_center0.992298742865129 - social\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.28 | 1038 | 2.86 | 0.00 |
| (control\_norm biospheric\_center-0.992298742865129) - (social\_norm biospheric\_center-0.992298742865129) | pro\_env\_framing | NA | 0.26 | 1038 | 1.04 | 0.30 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.32 | 1038 | -1.70 | 0.09 |
| (control\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.29 | 1038 | -1.51 | 0.13 |
| (social\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.28 | 1038 | -2.91 | 0.00 |
| (social\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.28 | 1038 | -2.47 | 0.01 |
| control\_norm biospheric\_center0.992298742865129 - social\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.30 | 1038 | 0.35 | 0.73 |
| (control\_norm biospheric\_center-0.992298742865129) - (social\_norm biospheric\_center-0.992298742865129) | self\_enh\_framing | NA | 0.32 | 1038 | -0.41 | 0.68 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.37 | 1038 | -2.67 | 0.01 |
| (control\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.34 | 1038 | -2.59 | 0.01 |
| (social\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.33 | 1038 | -2.61 | 0.01 |
| (social\_norm biospheric\_center-0.992298742865129) - social\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.41 | 1038 | -1.80 | 0.07 |
| control\_norm biospheric\_center0.992298742865129 - social\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.35 | 1038 | 0.33 | 0.74 |

# Control vs Moral Norm  
atlist <- list(biospheric\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "moral\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*biospheric\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | biospheric\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.99 | control\_framing | 3.89 | 0.20 | 1038 | 3.50 | 4.28 |
| moral\_norm | -0.99 | control\_framing | 4.31 | 0.32 | 1038 | 3.69 | 4.93 |
| control\_norm | 0.99 | control\_framing | 5.01 | 0.20 | 1038 | 4.62 | 5.40 |
| moral\_norm | 0.99 | control\_framing | 4.15 | 0.23 | 1038 | 3.70 | 4.60 |
| control\_norm | -0.99 | pro\_env\_framing | 4.34 | 0.19 | 1038 | 3.97 | 4.72 |
| moral\_norm | -0.99 | pro\_env\_framing | 3.85 | 0.19 | 1038 | 3.47 | 4.22 |
| control\_norm | 0.99 | pro\_env\_framing | 4.88 | 0.21 | 1038 | 4.46 | 5.30 |
| moral\_norm | 0.99 | pro\_env\_framing | 4.91 | 0.19 | 1038 | 4.54 | 5.28 |
| control\_norm | -0.99 | self\_enh\_framing | 3.74 | 0.22 | 1038 | 3.31 | 4.17 |
| moral\_norm | -0.99 | self\_enh\_framing | 4.26 | 0.26 | 1038 | 3.75 | 4.78 |
| control\_norm | 0.99 | self\_enh\_framing | 4.73 | 0.23 | 1038 | 4.28 | 5.18 |
| moral\_norm | 0.99 | self\_enh\_framing | 4.49 | 0.21 | 1038 | 4.07 | 4.91 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm biospheric\_center-0.992298742865129) - (moral\_norm biospheric\_center-0.992298742865129) | control\_framing | NA | 0.37 | 1038 | -1.13 | 0.26 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.31 | 1038 | -3.61 | 0.00 |
| (control\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.30 | 1038 | -0.87 | 0.38 |
| (moral\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.37 | 1038 | -1.88 | 0.06 |
| (moral\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.47 | 1038 | 0.34 | 0.74 |
| control\_norm biospheric\_center0.992298742865129 - moral\_norm biospheric\_center0.992298742865129 | control\_framing | NA | 0.30 | 1038 | 2.83 | 0.00 |
| (control\_norm biospheric\_center-0.992298742865129) - (moral\_norm biospheric\_center-0.992298742865129) | pro\_env\_framing | NA | 0.27 | 1038 | 1.83 | 0.07 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.32 | 1038 | -1.70 | 0.09 |
| (control\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.27 | 1038 | -2.10 | 0.04 |
| (moral\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.29 | 1038 | -3.60 | 0.00 |
| (moral\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.29 | 1038 | -3.63 | 0.00 |
| control\_norm biospheric\_center0.992298742865129 - moral\_norm biospheric\_center0.992298742865129 | pro\_env\_framing | NA | 0.28 | 1038 | -0.10 | 0.92 |
| (control\_norm biospheric\_center-0.992298742865129) - (moral\_norm biospheric\_center-0.992298742865129) | self\_enh\_framing | NA | 0.34 | 1038 | -1.53 | 0.13 |
| (control\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.37 | 1038 | -2.67 | 0.01 |
| (control\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.31 | 1038 | -2.45 | 0.01 |
| (moral\_norm biospheric\_center-0.992298742865129) - control\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.35 | 1038 | -1.34 | 0.18 |
| (moral\_norm biospheric\_center-0.992298742865129) - moral\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.40 | 1038 | -0.56 | 0.57 |
| control\_norm biospheric\_center0.992298742865129 - moral\_norm biospheric\_center0.992298742865129 | self\_enh\_framing | NA | 0.31 | 1038 | 0.77 | 0.44 |

#### Altruistic values

describe(average\_df$altruistic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.8 0.29 0.12 0.74 -5.21 0.79 6 -1.91 6.11 0.02

sd(average\_df$altruistic\_center)

## [1] 0.8036452

sd\_below <- mean(average\_df$altruistic\_center) - sd(average\_df$altruistic\_center)  
sd\_above <- mean(average\_df$altruistic\_center) + sd(average\_df$altruistic\_center)  
  
  
# Control vs Descriptive Norm  
atlist <- list(altruistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "descriptive\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*altruistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | altruistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.8 | control\_framing | 4.31 | 0.21 | 1038 | 3.90 | 4.71 |
| descriptive\_norm | -0.8 | control\_framing | 4.40 | 0.22 | 1038 | 3.96 | 4.83 |
| control\_norm | 0.8 | control\_framing | 4.59 | 0.19 | 1038 | 4.21 | 4.97 |
| descriptive\_norm | 0.8 | control\_framing | 4.19 | 0.25 | 1038 | 3.70 | 4.67 |
| control\_norm | -0.8 | pro\_env\_framing | 4.62 | 0.24 | 1038 | 4.15 | 5.09 |
| descriptive\_norm | -0.8 | pro\_env\_framing | 4.42 | 0.24 | 1038 | 3.94 | 4.90 |
| control\_norm | 0.8 | pro\_env\_framing | 4.61 | 0.23 | 1038 | 4.15 | 5.06 |
| descriptive\_norm | 0.8 | pro\_env\_framing | 4.46 | 0.20 | 1038 | 4.07 | 4.85 |
| control\_norm | -0.8 | self\_enh\_framing | 4.07 | 0.31 | 1038 | 3.47 | 4.68 |
| descriptive\_norm | -0.8 | self\_enh\_framing | 4.70 | 0.20 | 1038 | 4.30 | 5.10 |
| control\_norm | 0.8 | self\_enh\_framing | 4.40 | 0.30 | 1038 | 3.81 | 4.98 |
| descriptive\_norm | 0.8 | self\_enh\_framing | 4.25 | 0.22 | 1038 | 3.82 | 4.67 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm altruistic\_center-0.803645207958345) - (descriptive\_norm altruistic\_center-0.803645207958345) | control\_framing | NA | 0.30 | 1038 | -0.29 | 0.77 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.32 | 1038 | -0.90 | 0.37 |
| (control\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.32 | 1038 | 0.37 | 0.71 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.30 | 1038 | -0.66 | 0.51 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.39 | 1038 | 0.53 | 0.60 |
| control\_norm altruistic\_center0.803645207958345 - descriptive\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.31 | 1038 | 1.29 | 0.20 |
| (control\_norm altruistic\_center-0.803645207958345) - (descriptive\_norm altruistic\_center-0.803645207958345) | pro\_env\_framing | NA | 0.34 | 1038 | 0.57 | 0.57 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.39 | 1038 | 0.03 | 0.98 |
| (control\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.31 | 1038 | 0.50 | 0.62 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.34 | 1038 | -0.55 | 0.58 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.36 | 1038 | -0.11 | 0.92 |
| control\_norm altruistic\_center0.803645207958345 - descriptive\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.30 | 1038 | 0.48 | 0.63 |
| (control\_norm altruistic\_center-0.803645207958345) - (descriptive\_norm altruistic\_center-0.803645207958345) | self\_enh\_framing | NA | 0.37 | 1038 | -1.69 | 0.09 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.55 | 1038 | -0.59 | 0.56 |
| (control\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.38 | 1038 | -0.45 | 0.65 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.36 | 1038 | 0.85 | 0.40 |
| (descriptive\_norm altruistic\_center-0.803645207958345) - descriptive\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.34 | 1038 | 1.33 | 0.18 |
| control\_norm altruistic\_center0.803645207958345 - descriptive\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.37 | 1038 | 0.42 | 0.68 |

# Control vs Convention  
atlist <- list(altruistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "convention\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*altruistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | altruistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.8 | control\_framing | 4.31 | 0.21 | 1038 | 3.90 | 4.71 |
| convention\_norm | -0.8 | control\_framing | 4.82 | 0.23 | 1038 | 4.37 | 5.27 |
| control\_norm | 0.8 | control\_framing | 4.59 | 0.19 | 1038 | 4.21 | 4.97 |
| convention\_norm | 0.8 | control\_framing | 4.18 | 0.23 | 1038 | 3.73 | 4.63 |
| control\_norm | -0.8 | pro\_env\_framing | 4.62 | 0.24 | 1038 | 4.15 | 5.09 |
| convention\_norm | -0.8 | pro\_env\_framing | 4.57 | 0.21 | 1038 | 4.16 | 4.98 |
| control\_norm | 0.8 | pro\_env\_framing | 4.61 | 0.23 | 1038 | 4.15 | 5.06 |
| convention\_norm | 0.8 | pro\_env\_framing | 4.51 | 0.21 | 1038 | 4.10 | 4.91 |
| control\_norm | -0.8 | self\_enh\_framing | 4.07 | 0.31 | 1038 | 3.47 | 4.68 |
| convention\_norm | -0.8 | self\_enh\_framing | 4.24 | 0.25 | 1038 | 3.75 | 4.73 |
| control\_norm | 0.8 | self\_enh\_framing | 4.40 | 0.30 | 1038 | 3.81 | 4.98 |
| convention\_norm | 0.8 | self\_enh\_framing | 4.70 | 0.22 | 1038 | 4.26 | 5.13 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm altruistic\_center-0.803645207958345) - (convention\_norm altruistic\_center-0.803645207958345) | control\_framing | NA | 0.31 | 1038 | -1.66 | 0.10 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.32 | 1038 | -0.90 | 0.37 |
| (control\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.31 | 1038 | 0.41 | 0.68 |
| (convention\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.30 | 1038 | 0.76 | 0.45 |
| (convention\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.37 | 1038 | 1.72 | 0.09 |
| control\_norm altruistic\_center0.803645207958345 - convention\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.30 | 1038 | 1.36 | 0.17 |
| (control\_norm altruistic\_center-0.803645207958345) - (convention\_norm altruistic\_center-0.803645207958345) | pro\_env\_framing | NA | 0.32 | 1038 | 0.16 | 0.88 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.39 | 1038 | 0.03 | 0.98 |
| (control\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.32 | 1038 | 0.34 | 0.73 |
| (convention\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.31 | 1038 | -0.12 | 0.90 |
| (convention\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.34 | 1038 | 0.18 | 0.86 |
| control\_norm altruistic\_center0.803645207958345 - convention\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.31 | 1038 | 0.32 | 0.75 |
| (control\_norm altruistic\_center-0.803645207958345) - (convention\_norm altruistic\_center-0.803645207958345) | self\_enh\_framing | NA | 0.39 | 1038 | -0.43 | 0.67 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.55 | 1038 | -0.59 | 0.56 |
| (control\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.38 | 1038 | -1.65 | 0.10 |
| (convention\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.39 | 1038 | -0.40 | 0.69 |
| (convention\_norm altruistic\_center-0.803645207958345) - convention\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.39 | 1038 | -1.16 | 0.25 |
| control\_norm altruistic\_center0.803645207958345 - convention\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.37 | 1038 | -0.80 | 0.42 |

# Control vs Social Norm  
atlist <- list(altruistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "social\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*altruistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | altruistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.8 | control\_framing | 4.31 | 0.21 | 1038 | 3.90 | 4.71 |
| social\_norm | -0.8 | control\_framing | 3.83 | 0.24 | 1038 | 3.37 | 4.29 |
| control\_norm | 0.8 | control\_framing | 4.59 | 0.19 | 1038 | 4.21 | 4.97 |
| social\_norm | 0.8 | control\_framing | 4.49 | 0.21 | 1038 | 4.08 | 4.90 |
| control\_norm | -0.8 | pro\_env\_framing | 4.62 | 0.24 | 1038 | 4.15 | 5.09 |
| social\_norm | -0.8 | pro\_env\_framing | 4.47 | 0.23 | 1038 | 4.01 | 4.93 |
| control\_norm | 0.8 | pro\_env\_framing | 4.61 | 0.23 | 1038 | 4.15 | 5.06 |
| social\_norm | 0.8 | pro\_env\_framing | 4.38 | 0.22 | 1038 | 3.94 | 4.81 |
| control\_norm | -0.8 | self\_enh\_framing | 4.07 | 0.31 | 1038 | 3.47 | 4.68 |
| social\_norm | -0.8 | self\_enh\_framing | 4.28 | 0.29 | 1038 | 3.72 | 4.84 |
| control\_norm | 0.8 | self\_enh\_framing | 4.40 | 0.30 | 1038 | 3.81 | 4.98 |
| social\_norm | 0.8 | self\_enh\_framing | 4.21 | 0.26 | 1038 | 3.70 | 4.73 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm altruistic\_center-0.803645207958345) - (social\_norm altruistic\_center-0.803645207958345) | control\_framing | NA | 0.31 | 1038 | 1.53 | 0.13 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.32 | 1038 | -0.90 | 0.37 |
| (control\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.29 | 1038 | -0.62 | 0.53 |
| (social\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.31 | 1038 | -2.49 | 0.01 |
| (social\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.38 | 1038 | -1.74 | 0.08 |
| control\_norm altruistic\_center0.803645207958345 - social\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.28 | 1038 | 0.36 | 0.72 |
| (control\_norm altruistic\_center-0.803645207958345) - (social\_norm altruistic\_center-0.803645207958345) | pro\_env\_framing | NA | 0.33 | 1038 | 0.44 | 0.66 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.39 | 1038 | 0.03 | 0.98 |
| (control\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.33 | 1038 | 0.73 | 0.46 |
| (social\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.33 | 1038 | -0.41 | 0.68 |
| (social\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.37 | 1038 | 0.26 | 0.80 |
| control\_norm altruistic\_center0.803645207958345 - social\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.32 | 1038 | 0.72 | 0.47 |
| (control\_norm altruistic\_center-0.803645207958345) - (social\_norm altruistic\_center-0.803645207958345) | self\_enh\_framing | NA | 0.42 | 1038 | -0.49 | 0.63 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.55 | 1038 | -0.59 | 0.56 |
| (control\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.41 | 1038 | -0.34 | 0.73 |
| (social\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.41 | 1038 | -0.29 | 0.77 |
| (social\_norm altruistic\_center-0.803645207958345) - social\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.48 | 1038 | 0.14 | 0.89 |
| control\_norm altruistic\_center0.803645207958345 - social\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.40 | 1038 | 0.47 | 0.64 |

# Control vs Moral Norm  
atlist <- list(altruistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "moral\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*altruistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | altruistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.8 | control\_framing | 4.31 | 0.21 | 1038 | 3.90 | 4.71 |
| moral\_norm | -0.8 | control\_framing | 3.82 | 0.21 | 1038 | 3.41 | 4.24 |
| control\_norm | 0.8 | control\_framing | 4.59 | 0.19 | 1038 | 4.21 | 4.97 |
| moral\_norm | 0.8 | control\_framing | 4.64 | 0.30 | 1038 | 4.05 | 5.22 |
| control\_norm | -0.8 | pro\_env\_framing | 4.62 | 0.24 | 1038 | 4.15 | 5.09 |
| moral\_norm | -0.8 | pro\_env\_framing | 4.35 | 0.19 | 1038 | 3.98 | 4.72 |
| control\_norm | 0.8 | pro\_env\_framing | 4.61 | 0.23 | 1038 | 4.15 | 5.06 |
| moral\_norm | 0.8 | pro\_env\_framing | 4.40 | 0.20 | 1038 | 4.02 | 4.79 |
| control\_norm | -0.8 | self\_enh\_framing | 4.07 | 0.31 | 1038 | 3.47 | 4.68 |
| moral\_norm | -0.8 | self\_enh\_framing | 3.98 | 0.20 | 1038 | 3.59 | 4.36 |
| control\_norm | 0.8 | self\_enh\_framing | 4.40 | 0.30 | 1038 | 3.81 | 4.98 |
| moral\_norm | 0.8 | self\_enh\_framing | 4.78 | 0.23 | 1038 | 4.33 | 5.22 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm altruistic\_center-0.803645207958345) - (moral\_norm altruistic\_center-0.803645207958345) | control\_framing | NA | 0.29 | 1038 | 1.64 | 0.10 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.32 | 1038 | -0.90 | 0.37 |
| (control\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.36 | 1038 | -0.91 | 0.36 |
| (moral\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.29 | 1038 | -2.67 | 0.01 |
| (moral\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.43 | 1038 | -1.90 | 0.06 |
| control\_norm altruistic\_center0.803645207958345 - moral\_norm altruistic\_center0.803645207958345 | control\_framing | NA | 0.35 | 1038 | -0.12 | 0.90 |
| (control\_norm altruistic\_center-0.803645207958345) - (moral\_norm altruistic\_center-0.803645207958345) | pro\_env\_framing | NA | 0.31 | 1038 | 0.87 | 0.38 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.39 | 1038 | 0.03 | 0.98 |
| (control\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.31 | 1038 | 0.68 | 0.49 |
| (moral\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.30 | 1038 | -0.86 | 0.39 |
| (moral\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.30 | 1038 | -0.18 | 0.86 |
| control\_norm altruistic\_center0.803645207958345 - moral\_norm altruistic\_center0.803645207958345 | pro\_env\_framing | NA | 0.30 | 1038 | 0.67 | 0.50 |
| (control\_norm altruistic\_center-0.803645207958345) - (moral\_norm altruistic\_center-0.803645207958345) | self\_enh\_framing | NA | 0.37 | 1038 | 0.27 | 0.79 |
| (control\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.55 | 1038 | -0.59 | 0.56 |
| (control\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.39 | 1038 | -1.80 | 0.07 |
| (moral\_norm altruistic\_center-0.803645207958345) - control\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.36 | 1038 | -1.18 | 0.24 |
| (moral\_norm altruistic\_center-0.803645207958345) - moral\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.34 | 1038 | -2.37 | 0.02 |
| control\_norm altruistic\_center0.803645207958345 - moral\_norm altruistic\_center0.803645207958345 | self\_enh\_framing | NA | 0.37 | 1038 | -1.04 | 0.30 |

#### Egoistic values

describe(average\_df$egoistic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.92 0 0.03 0.89 -3.4 2 5.4 -0.4 0.31 0.03

sd(average\_df$egoistic\_center)

## [1] 0.9168409

sd\_below <- mean(average\_df$egoistic\_center) - sd(average\_df$egoistic\_center)  
sd\_above <- mean(average\_df$egoistic\_center) + sd(average\_df$egoistic\_center)  
  
  
# Control vs Descriptive Norm  
atlist <- list(egoistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "descriptive\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*egoistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | egoistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.92 | control\_framing | 4.67 | 0.17 | 1038 | 4.34 | 5.00 |
| descriptive\_norm | -0.92 | control\_framing | 4.54 | 0.22 | 1038 | 4.12 | 4.97 |
| control\_norm | 0.92 | control\_framing | 4.23 | 0.20 | 1038 | 3.84 | 4.62 |
| descriptive\_norm | 0.92 | control\_framing | 4.04 | 0.20 | 1038 | 3.64 | 4.44 |
| control\_norm | -0.92 | pro\_env\_framing | 5.08 | 0.18 | 1038 | 4.74 | 5.43 |
| descriptive\_norm | -0.92 | pro\_env\_framing | 4.67 | 0.21 | 1038 | 4.25 | 5.08 |
| control\_norm | 0.92 | pro\_env\_framing | 4.14 | 0.19 | 1038 | 3.77 | 4.50 |
| descriptive\_norm | 0.92 | pro\_env\_framing | 4.22 | 0.18 | 1038 | 3.87 | 4.57 |
| control\_norm | -0.92 | self\_enh\_framing | 4.54 | 0.21 | 1038 | 4.13 | 4.95 |
| descriptive\_norm | -0.92 | self\_enh\_framing | 4.72 | 0.22 | 1038 | 4.29 | 5.15 |
| control\_norm | 0.92 | self\_enh\_framing | 3.93 | 0.20 | 1038 | 3.55 | 4.32 |
| descriptive\_norm | 0.92 | self\_enh\_framing | 4.23 | 0.23 | 1038 | 3.78 | 4.68 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm egoistic\_center-0.916840867752407) - (descriptive\_norm egoistic\_center-0.916840867752407) | control\_framing | NA | 0.27 | 1038 | 0.47 | 0.64 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.63 | 0.10 |
| (control\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.26 | 1038 | 2.40 | 0.02 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.29 | 1038 | 1.08 | 0.28 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.32 | 1038 | 1.57 | 0.12 |
| control\_norm egoistic\_center0.916840867752407 - descriptive\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.28 | 1038 | 0.66 | 0.51 |
| (control\_norm egoistic\_center-0.916840867752407) - (descriptive\_norm egoistic\_center-0.916840867752407) | pro\_env\_framing | NA | 0.27 | 1038 | 1.53 | 0.13 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 3.69 | 0.00 |
| (control\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.25 | 1038 | 3.45 | 0.00 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.28 | 1038 | 1.88 | 0.06 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.29 | 1038 | 1.53 | 0.13 |
| control\_norm egoistic\_center0.916840867752407 - descriptive\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | -0.31 | 0.76 |
| (control\_norm egoistic\_center-0.916840867752407) - (descriptive\_norm egoistic\_center-0.916840867752407) | self\_enh\_framing | NA | 0.31 | 1038 | -0.58 | 0.56 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.32 | 1038 | 1.90 | 0.06 |
| (control\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.31 | 1038 | 1.01 | 0.31 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.29 | 1038 | 2.70 | 0.01 |
| (descriptive\_norm egoistic\_center-0.916840867752407) - descriptive\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.38 | 1038 | 1.29 | 0.20 |
| control\_norm egoistic\_center0.916840867752407 - descriptive\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.31 | 1038 | -0.97 | 0.33 |

# Control vs Convention  
atlist <- list(egoistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "convention\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*egoistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | egoistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.92 | control\_framing | 4.67 | 0.17 | 1038 | 4.34 | 5.00 |
| convention\_norm | -0.92 | control\_framing | 4.91 | 0.18 | 1038 | 4.55 | 5.26 |
| control\_norm | 0.92 | control\_framing | 4.23 | 0.20 | 1038 | 3.84 | 4.62 |
| convention\_norm | 0.92 | control\_framing | 4.09 | 0.20 | 1038 | 3.70 | 4.49 |
| control\_norm | -0.92 | pro\_env\_framing | 5.08 | 0.18 | 1038 | 4.74 | 5.43 |
| convention\_norm | -0.92 | pro\_env\_framing | 4.63 | 0.18 | 1038 | 4.27 | 4.99 |
| control\_norm | 0.92 | pro\_env\_framing | 4.14 | 0.19 | 1038 | 3.77 | 4.50 |
| convention\_norm | 0.92 | pro\_env\_framing | 4.44 | 0.19 | 1038 | 4.06 | 4.82 |
| control\_norm | -0.92 | self\_enh\_framing | 4.54 | 0.21 | 1038 | 4.13 | 4.95 |
| convention\_norm | -0.92 | self\_enh\_framing | 4.96 | 0.18 | 1038 | 4.61 | 5.31 |
| control\_norm | 0.92 | self\_enh\_framing | 3.93 | 0.20 | 1038 | 3.55 | 4.32 |
| convention\_norm | 0.92 | self\_enh\_framing | 3.98 | 0.18 | 1038 | 3.62 | 4.33 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm egoistic\_center-0.916840867752407) - (convention\_norm egoistic\_center-0.916840867752407) | control\_framing | NA | 0.25 | 1038 | -0.96 | 0.34 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.63 | 0.10 |
| (control\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.26 | 1038 | 2.20 | 0.03 |
| (convention\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 2.53 | 0.01 |
| (convention\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 3.04 | 0.00 |
| control\_norm egoistic\_center0.916840867752407 - convention\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.28 | 1038 | 0.48 | 0.63 |
| (control\_norm egoistic\_center-0.916840867752407) - (convention\_norm egoistic\_center-0.916840867752407) | pro\_env\_framing | NA | 0.25 | 1038 | 1.78 | 0.08 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 3.69 | 0.00 |
| (control\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 2.47 | 0.01 |
| (convention\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 1.90 | 0.06 |
| (convention\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.29 | 1038 | 0.66 | 0.51 |
| control\_norm egoistic\_center0.916840867752407 - convention\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.27 | 1038 | -1.13 | 0.26 |
| (control\_norm egoistic\_center-0.916840867752407) - (convention\_norm egoistic\_center-0.916840867752407) | self\_enh\_framing | NA | 0.28 | 1038 | -1.53 | 0.13 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.32 | 1038 | 1.90 | 0.06 |
| (control\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.28 | 1038 | 2.01 | 0.04 |
| (convention\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.26 | 1038 | 3.92 | 0.00 |
| (convention\_norm egoistic\_center-0.916840867752407) - convention\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.25 | 1038 | 3.97 | 0.00 |
| control\_norm egoistic\_center0.916840867752407 - convention\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.27 | 1038 | -0.17 | 0.87 |

# Control vs Social Norm  
atlist <- list(egoistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "social\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*egoistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | egoistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.92 | control\_framing | 4.67 | 0.17 | 1038 | 4.34 | 5.00 |
| social\_norm | -0.92 | control\_framing | 4.57 | 0.17 | 1038 | 4.24 | 4.90 |
| control\_norm | 0.92 | control\_framing | 4.23 | 0.20 | 1038 | 3.84 | 4.62 |
| social\_norm | 0.92 | control\_framing | 3.75 | 0.18 | 1038 | 3.39 | 4.11 |
| control\_norm | -0.92 | pro\_env\_framing | 5.08 | 0.18 | 1038 | 4.74 | 5.43 |
| social\_norm | -0.92 | pro\_env\_framing | 4.56 | 0.19 | 1038 | 4.18 | 4.94 |
| control\_norm | 0.92 | pro\_env\_framing | 4.14 | 0.19 | 1038 | 3.77 | 4.50 |
| social\_norm | 0.92 | pro\_env\_framing | 4.28 | 0.20 | 1038 | 3.89 | 4.68 |
| control\_norm | -0.92 | self\_enh\_framing | 4.54 | 0.21 | 1038 | 4.13 | 4.95 |
| social\_norm | -0.92 | self\_enh\_framing | 4.41 | 0.21 | 1038 | 3.99 | 4.83 |
| control\_norm | 0.92 | self\_enh\_framing | 3.93 | 0.20 | 1038 | 3.55 | 4.32 |
| social\_norm | 0.92 | self\_enh\_framing | 4.08 | 0.19 | 1038 | 3.70 | 4.46 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm egoistic\_center-0.916840867752407) - (social\_norm egoistic\_center-0.916840867752407) | control\_framing | NA | 0.24 | 1038 | 0.42 | 0.67 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.63 | 0.10 |
| (control\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.25 | 1038 | 3.70 | 0.00 |
| (social\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.26 | 1038 | 1.33 | 0.18 |
| (social\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.26 | 1038 | 3.13 | 0.00 |
| control\_norm egoistic\_center0.916840867752407 - social\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.77 | 0.08 |
| (control\_norm egoistic\_center-0.916840867752407) - (social\_norm egoistic\_center-0.916840867752407) | pro\_env\_framing | NA | 0.26 | 1038 | 2.00 | 0.05 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 3.69 | 0.00 |
| (control\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.27 | 1038 | 2.99 | 0.00 |
| (social\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.27 | 1038 | 1.58 | 0.11 |
| (social\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.29 | 1038 | 0.97 | 0.33 |
| control\_norm egoistic\_center0.916840867752407 - social\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.27 | 1038 | -0.53 | 0.60 |
| (control\_norm egoistic\_center-0.916840867752407) - (social\_norm egoistic\_center-0.916840867752407) | self\_enh\_framing | NA | 0.30 | 1038 | 0.43 | 0.67 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.32 | 1038 | 1.90 | 0.06 |
| (control\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.28 | 1038 | 1.62 | 0.11 |
| (social\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.29 | 1038 | 1.64 | 0.10 |
| (social\_norm egoistic\_center-0.916840867752407) - social\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.30 | 1038 | 1.10 | 0.27 |
| control\_norm egoistic\_center0.916840867752407 - social\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.28 | 1038 | -0.53 | 0.60 |

# Control vs Moral Norm  
atlist <- list(egoistic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "moral\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*egoistic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | egoistic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.92 | control\_framing | 4.67 | 0.17 | 1038 | 4.34 | 5.00 |
| moral\_norm | -0.92 | control\_framing | 4.29 | 0.24 | 1038 | 3.82 | 4.76 |
| control\_norm | 0.92 | control\_framing | 4.23 | 0.20 | 1038 | 3.84 | 4.62 |
| moral\_norm | 0.92 | control\_framing | 4.17 | 0.21 | 1038 | 3.76 | 4.58 |
| control\_norm | -0.92 | pro\_env\_framing | 5.08 | 0.18 | 1038 | 4.74 | 5.43 |
| moral\_norm | -0.92 | pro\_env\_framing | 4.66 | 0.19 | 1038 | 4.29 | 5.03 |
| control\_norm | 0.92 | pro\_env\_framing | 4.14 | 0.19 | 1038 | 3.77 | 4.50 |
| moral\_norm | 0.92 | pro\_env\_framing | 4.09 | 0.18 | 1038 | 3.75 | 4.44 |
| control\_norm | -0.92 | self\_enh\_framing | 4.54 | 0.21 | 1038 | 4.13 | 4.95 |
| moral\_norm | -0.92 | self\_enh\_framing | 4.68 | 0.18 | 1038 | 4.32 | 5.04 |
| control\_norm | 0.92 | self\_enh\_framing | 3.93 | 0.20 | 1038 | 3.55 | 4.32 |
| moral\_norm | 0.92 | self\_enh\_framing | 4.07 | 0.19 | 1038 | 3.70 | 4.44 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm egoistic\_center-0.916840867752407) - (moral\_norm egoistic\_center-0.916840867752407) | control\_framing | NA | 0.29 | 1038 | 1.31 | 0.19 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.63 | 0.10 |
| (control\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.27 | 1038 | 1.85 | 0.06 |
| (moral\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.31 | 1038 | 0.20 | 0.84 |
| (moral\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.35 | 1038 | 0.34 | 0.73 |
| control\_norm egoistic\_center0.916840867752407 - moral\_norm egoistic\_center0.916840867752407 | control\_framing | NA | 0.29 | 1038 | 0.20 | 0.84 |
| (control\_norm egoistic\_center-0.916840867752407) - (moral\_norm egoistic\_center-0.916840867752407) | pro\_env\_framing | NA | 0.26 | 1038 | 1.66 | 0.10 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 3.69 | 0.00 |
| (control\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.25 | 1038 | 3.97 | 0.00 |
| (moral\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 1.97 | 0.05 |
| (moral\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.27 | 1038 | 2.07 | 0.04 |
| control\_norm egoistic\_center0.916840867752407 - moral\_norm egoistic\_center0.916840867752407 | pro\_env\_framing | NA | 0.26 | 1038 | 0.17 | 0.87 |
| (control\_norm egoistic\_center-0.916840867752407) - (moral\_norm egoistic\_center-0.916840867752407) | self\_enh\_framing | NA | 0.28 | 1038 | -0.52 | 0.60 |
| (control\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.32 | 1038 | 1.90 | 0.06 |
| (control\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.28 | 1038 | 1.68 | 0.09 |
| (moral\_norm egoistic\_center-0.916840867752407) - control\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.27 | 1038 | 2.79 | 0.01 |
| (moral\_norm egoistic\_center-0.916840867752407) - moral\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.27 | 1038 | 2.30 | 0.02 |
| control\_norm egoistic\_center0.916840867752407 - moral\_norm egoistic\_center0.916840867752407 | self\_enh\_framing | NA | 0.27 | 1038 | -0.50 | 0.62 |

#### Hedonic values

describe(average\_df$hedonic\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 0.79 0.28 0.09 0.49 -5.05 0.95 6 -1.45 3.69 0.02

sd(average\_df$hedonic\_center)

## [1] 0.7911186

sd\_below <- mean(average\_df$hedonic\_center) - sd(average\_df$hedonic\_center)  
sd\_above <- mean(average\_df$hedonic\_center) + sd(average\_df$hedonic\_center)  
  
  
# Control vs Descriptive Norm  
atlist <- list(hedonic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "descriptive\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*hedonic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | hedonic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.79 | control\_framing | 4.72 | 0.20 | 1038 | 4.33 | 5.10 |
| descriptive\_norm | -0.79 | control\_framing | 4.41 | 0.21 | 1038 | 3.98 | 4.83 |
| control\_norm | 0.79 | control\_framing | 4.18 | 0.18 | 1038 | 3.82 | 4.54 |
| descriptive\_norm | 0.79 | control\_framing | 4.18 | 0.22 | 1038 | 3.74 | 4.61 |
| control\_norm | -0.79 | pro\_env\_framing | 4.49 | 0.23 | 1038 | 4.04 | 4.95 |
| descriptive\_norm | -0.79 | pro\_env\_framing | 4.53 | 0.20 | 1038 | 4.15 | 4.92 |
| control\_norm | 0.79 | pro\_env\_framing | 4.73 | 0.19 | 1038 | 4.35 | 5.11 |
| descriptive\_norm | 0.79 | pro\_env\_framing | 4.35 | 0.23 | 1038 | 3.89 | 4.81 |
| control\_norm | -0.79 | self\_enh\_framing | 4.28 | 0.26 | 1038 | 3.78 | 4.78 |
| descriptive\_norm | -0.79 | self\_enh\_framing | 4.38 | 0.23 | 1038 | 3.94 | 4.83 |
| control\_norm | 0.79 | self\_enh\_framing | 4.19 | 0.22 | 1038 | 3.76 | 4.62 |
| descriptive\_norm | 0.79 | self\_enh\_framing | 4.57 | 0.23 | 1038 | 4.12 | 5.01 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm hedonic\_center-0.791118625256819) - (descriptive\_norm hedonic\_center-0.791118625256819) | control\_framing | NA | 0.29 | 1038 | 1.07 | 0.29 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 1.85 | 0.07 |
| (control\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.30 | 1038 | 1.81 | 0.07 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.28 | 1038 | 0.79 | 0.43 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.35 | 1038 | 0.66 | 0.51 |
| control\_norm hedonic\_center0.791118625256819 - descriptive\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 0.01 | 0.99 |
| (control\_norm hedonic\_center-0.791118625256819) - (descriptive\_norm hedonic\_center-0.791118625256819) | pro\_env\_framing | NA | 0.30 | 1038 | -0.13 | 0.90 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.34 | 1038 | -0.69 | 0.49 |
| (control\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.33 | 1038 | 0.44 | 0.66 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.27 | 1038 | -0.71 | 0.48 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.35 | 1038 | 0.53 | 0.60 |
| control\_norm hedonic\_center0.791118625256819 - descriptive\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.30 | 1038 | 1.25 | 0.21 |
| (control\_norm hedonic\_center-0.791118625256819) - (descriptive\_norm hedonic\_center-0.791118625256819) | self\_enh\_framing | NA | 0.34 | 1038 | -0.29 | 0.77 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.40 | 1038 | 0.23 | 0.82 |
| (control\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.34 | 1038 | -0.83 | 0.41 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.32 | 1038 | 0.61 | 0.54 |
| (descriptive\_norm hedonic\_center-0.791118625256819) - descriptive\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.38 | 1038 | -0.48 | 0.63 |
| control\_norm hedonic\_center0.791118625256819 - descriptive\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.31 | 1038 | -1.20 | 0.23 |

# Control vs Convention  
atlist <- list(hedonic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "convention\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*hedonic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | hedonic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.79 | control\_framing | 4.72 | 0.20 | 1038 | 4.33 | 5.10 |
| convention\_norm | -0.79 | control\_framing | 4.38 | 0.24 | 1038 | 3.91 | 4.85 |
| control\_norm | 0.79 | control\_framing | 4.18 | 0.18 | 1038 | 3.82 | 4.54 |
| convention\_norm | 0.79 | control\_framing | 4.62 | 0.20 | 1038 | 4.24 | 5.00 |
| control\_norm | -0.79 | pro\_env\_framing | 4.49 | 0.23 | 1038 | 4.04 | 4.95 |
| convention\_norm | -0.79 | pro\_env\_framing | 4.38 | 0.21 | 1038 | 3.96 | 4.79 |
| control\_norm | 0.79 | pro\_env\_framing | 4.73 | 0.19 | 1038 | 4.35 | 5.11 |
| convention\_norm | 0.79 | pro\_env\_framing | 4.70 | 0.19 | 1038 | 4.33 | 5.07 |
| control\_norm | -0.79 | self\_enh\_framing | 4.28 | 0.26 | 1038 | 3.78 | 4.78 |
| convention\_norm | -0.79 | self\_enh\_framing | 4.46 | 0.16 | 1038 | 4.13 | 4.78 |
| control\_norm | 0.79 | self\_enh\_framing | 4.19 | 0.22 | 1038 | 3.76 | 4.62 |
| convention\_norm | 0.79 | self\_enh\_framing | 4.48 | 0.21 | 1038 | 4.08 | 4.89 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm hedonic\_center-0.791118625256819) - (convention\_norm hedonic\_center-0.791118625256819) | control\_framing | NA | 0.31 | 1038 | 1.09 | 0.28 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 1.85 | 0.07 |
| (control\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.28 | 1038 | 0.35 | 0.73 |
| (convention\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.30 | 1038 | 0.66 | 0.51 |
| (convention\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.34 | 1038 | -0.71 | 0.48 |
| control\_norm hedonic\_center0.791118625256819 - convention\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.27 | 1038 | -1.64 | 0.10 |
| (control\_norm hedonic\_center-0.791118625256819) - (convention\_norm hedonic\_center-0.791118625256819) | pro\_env\_framing | NA | 0.31 | 1038 | 0.38 | 0.71 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.34 | 1038 | -0.69 | 0.49 |
| (control\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.30 | 1038 | -0.68 | 0.50 |
| (convention\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.29 | 1038 | -1.23 | 0.22 |
| (convention\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.32 | 1038 | -1.00 | 0.32 |
| control\_norm hedonic\_center0.791118625256819 - convention\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.27 | 1038 | 0.11 | 0.91 |
| (control\_norm hedonic\_center-0.791118625256819) - (convention\_norm hedonic\_center-0.791118625256819) | self\_enh\_framing | NA | 0.31 | 1038 | -0.57 | 0.57 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.40 | 1038 | 0.23 | 0.82 |
| (control\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.33 | 1038 | -0.61 | 0.54 |
| (convention\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.27 | 1038 | 0.99 | 0.32 |
| (convention\_norm hedonic\_center-0.791118625256819) - convention\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.27 | 1038 | -0.10 | 0.92 |
| control\_norm hedonic\_center0.791118625256819 - convention\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.30 | 1038 | -0.98 | 0.33 |

# Control vs Social Norm  
atlist <- list(hedonic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "social\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*hedonic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | hedonic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.79 | control\_framing | 4.72 | 0.20 | 1038 | 4.33 | 5.10 |
| social\_norm | -0.79 | control\_framing | 4.20 | 0.20 | 1038 | 3.81 | 4.58 |
| control\_norm | 0.79 | control\_framing | 4.18 | 0.18 | 1038 | 3.82 | 4.54 |
| social\_norm | 0.79 | control\_framing | 4.12 | 0.18 | 1038 | 3.77 | 4.48 |
| control\_norm | -0.79 | pro\_env\_framing | 4.49 | 0.23 | 1038 | 4.04 | 4.95 |
| social\_norm | -0.79 | pro\_env\_framing | 4.51 | 0.20 | 1038 | 4.11 | 4.90 |
| control\_norm | 0.79 | pro\_env\_framing | 4.73 | 0.19 | 1038 | 4.35 | 5.11 |
| social\_norm | 0.79 | pro\_env\_framing | 4.34 | 0.21 | 1038 | 3.93 | 4.75 |
| control\_norm | -0.79 | self\_enh\_framing | 4.28 | 0.26 | 1038 | 3.78 | 4.78 |
| social\_norm | -0.79 | self\_enh\_framing | 4.55 | 0.24 | 1038 | 4.08 | 5.02 |
| control\_norm | 0.79 | self\_enh\_framing | 4.19 | 0.22 | 1038 | 3.76 | 4.62 |
| social\_norm | 0.79 | self\_enh\_framing | 3.94 | 0.24 | 1038 | 3.48 | 4.41 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm hedonic\_center-0.791118625256819) - (social\_norm hedonic\_center-0.791118625256819) | control\_framing | NA | 0.28 | 1038 | 1.86 | 0.06 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 1.85 | 0.07 |
| (control\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.27 | 1038 | 2.21 | 0.03 |
| (social\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.27 | 1038 | 0.05 | 0.96 |
| (social\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.30 | 1038 | 0.25 | 0.81 |
| control\_norm hedonic\_center0.791118625256819 - social\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.26 | 1038 | 0.23 | 0.82 |
| (control\_norm hedonic\_center-0.791118625256819) - (social\_norm hedonic\_center-0.791118625256819) | pro\_env\_framing | NA | 0.31 | 1038 | -0.04 | 0.97 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.34 | 1038 | -0.69 | 0.49 |
| (control\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.31 | 1038 | 0.50 | 0.62 |
| (social\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.28 | 1038 | -0.80 | 0.43 |
| (social\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.31 | 1038 | 0.55 | 0.58 |
| control\_norm hedonic\_center0.791118625256819 - social\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.28 | 1038 | 1.38 | 0.17 |
| (control\_norm hedonic\_center-0.791118625256819) - (social\_norm hedonic\_center-0.791118625256819) | self\_enh\_framing | NA | 0.35 | 1038 | -0.76 | 0.45 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.40 | 1038 | 0.23 | 0.82 |
| (control\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.35 | 1038 | 0.98 | 0.33 |
| (social\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.33 | 1038 | 1.10 | 0.27 |
| (social\_norm hedonic\_center-0.791118625256819) - social\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.39 | 1038 | 1.55 | 0.12 |
| control\_norm hedonic\_center0.791118625256819 - social\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.32 | 1038 | 0.77 | 0.44 |

# Control vs Moral Norm  
atlist <- list(hedonic\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "moral\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*hedonic\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | hedonic\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -0.79 | control\_framing | 4.72 | 0.20 | 1038 | 4.33 | 5.10 |
| moral\_norm | -0.79 | control\_framing | 4.52 | 0.23 | 1038 | 4.07 | 4.97 |
| control\_norm | 0.79 | control\_framing | 4.18 | 0.18 | 1038 | 3.82 | 4.54 |
| moral\_norm | 0.79 | control\_framing | 3.94 | 0.22 | 1038 | 3.52 | 4.37 |
| control\_norm | -0.79 | pro\_env\_framing | 4.49 | 0.23 | 1038 | 4.04 | 4.95 |
| moral\_norm | -0.79 | pro\_env\_framing | 4.44 | 0.18 | 1038 | 4.08 | 4.80 |
| control\_norm | 0.79 | pro\_env\_framing | 4.73 | 0.19 | 1038 | 4.35 | 5.11 |
| moral\_norm | 0.79 | pro\_env\_framing | 4.31 | 0.20 | 1038 | 3.93 | 4.70 |
| control\_norm | -0.79 | self\_enh\_framing | 4.28 | 0.26 | 1038 | 3.78 | 4.78 |
| moral\_norm | -0.79 | self\_enh\_framing | 4.68 | 0.17 | 1038 | 4.35 | 5.02 |
| control\_norm | 0.79 | self\_enh\_framing | 4.19 | 0.22 | 1038 | 3.76 | 4.62 |
| moral\_norm | 0.79 | self\_enh\_framing | 4.07 | 0.20 | 1038 | 3.68 | 4.46 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm hedonic\_center-0.791118625256819) - (moral\_norm hedonic\_center-0.791118625256819) | control\_framing | NA | 0.30 | 1038 | 0.66 | 0.51 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 1.85 | 0.07 |
| (control\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 2.64 | 0.01 |
| (moral\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.29 | 1038 | 1.14 | 0.25 |
| (moral\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.34 | 1038 | 1.69 | 0.09 |
| control\_norm hedonic\_center0.791118625256819 - moral\_norm hedonic\_center0.791118625256819 | control\_framing | NA | 0.28 | 1038 | 0.85 | 0.40 |
| (control\_norm hedonic\_center-0.791118625256819) - (moral\_norm hedonic\_center-0.791118625256819) | pro\_env\_framing | NA | 0.29 | 1038 | 0.18 | 0.86 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.34 | 1038 | -0.69 | 0.49 |
| (control\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.30 | 1038 | 0.60 | 0.55 |
| (moral\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.26 | 1038 | -1.08 | 0.28 |
| (moral\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.29 | 1038 | 0.45 | 0.66 |
| control\_norm hedonic\_center0.791118625256819 - moral\_norm hedonic\_center0.791118625256819 | pro\_env\_framing | NA | 0.27 | 1038 | 1.52 | 0.13 |
| (control\_norm hedonic\_center-0.791118625256819) - (moral\_norm hedonic\_center-0.791118625256819) | self\_enh\_framing | NA | 0.30 | 1038 | -1.33 | 0.18 |
| (control\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.40 | 1038 | 0.23 | 0.82 |
| (control\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.32 | 1038 | 0.66 | 0.51 |
| (moral\_norm hedonic\_center-0.791118625256819) - control\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.28 | 1038 | 1.75 | 0.08 |
| (moral\_norm hedonic\_center-0.791118625256819) - moral\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.27 | 1038 | 2.31 | 0.02 |
| control\_norm hedonic\_center0.791118625256819 - moral\_norm hedonic\_center0.791118625256819 | self\_enh\_framing | NA | 0.30 | 1038 | 0.40 | 0.69 |

#### Ingroup identification

describe(average\_df$ingroup\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 1.01 0.01 0.03 0.95 -3.64 2.36 6 -0.27 0.17 0.03

sd(average\_df$ingroup\_center)

## [1] 1.012186

sd\_below <- mean(average\_df$ingroup\_center) - sd(average\_df$ingroup\_center)  
sd\_above <- mean(average\_df$ingroup\_center) + sd(average\_df$ingroup\_center)  
  
  
# Control vs Descriptive Norm  
atlist <- list(ingroup\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "descriptive\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*ingroup\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | ingroup\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -1.01 | control\_framing | 4.26 | 0.16 | 1038 | 3.95 | 4.58 |
| descriptive\_norm | -1.01 | control\_framing | 4.31 | 0.22 | 1038 | 3.87 | 4.74 |
| control\_norm | 1.01 | control\_framing | 4.63 | 0.18 | 1038 | 4.28 | 4.99 |
| descriptive\_norm | 1.01 | control\_framing | 4.28 | 0.18 | 1038 | 3.92 | 4.64 |
| control\_norm | -1.01 | pro\_env\_framing | 4.62 | 0.18 | 1038 | 4.27 | 4.96 |
| descriptive\_norm | -1.01 | pro\_env\_framing | 4.38 | 0.19 | 1038 | 4.01 | 4.75 |
| control\_norm | 1.01 | pro\_env\_framing | 4.61 | 0.19 | 1038 | 4.23 | 4.99 |
| descriptive\_norm | 1.01 | pro\_env\_framing | 4.50 | 0.18 | 1038 | 4.15 | 4.85 |
| control\_norm | -1.01 | self\_enh\_framing | 4.28 | 0.17 | 1038 | 3.94 | 4.62 |
| descriptive\_norm | -1.01 | self\_enh\_framing | 4.34 | 0.18 | 1038 | 3.99 | 4.69 |
| control\_norm | 1.01 | self\_enh\_framing | 4.19 | 0.19 | 1038 | 3.82 | 4.55 |
| descriptive\_norm | 1.01 | self\_enh\_framing | 4.60 | 0.16 | 1038 | 4.29 | 4.92 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm ingroup\_center-1.01218644014995) - (descriptive\_norm ingroup\_center-1.01218644014995) | control\_framing | NA | 0.27 | 1038 | -0.15 | 0.88 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -1.56 | 0.12 |
| (control\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -0.05 | 0.96 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.28 | 1038 | -1.16 | 0.25 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.31 | 1038 | 0.09 | 0.93 |
| control\_norm ingroup\_center1.01218644014995 - descriptive\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.26 | 1038 | 1.39 | 0.16 |
| (control\_norm ingroup\_center-1.01218644014995) - (descriptive\_norm ingroup\_center-1.01218644014995) | pro\_env\_framing | NA | 0.26 | 1038 | 0.91 | 0.36 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.04 | 0.97 |
| (control\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.25 | 1038 | 0.46 | 0.64 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | -0.83 | 0.41 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | -0.44 | 0.66 |
| control\_norm ingroup\_center1.01218644014995 - descriptive\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | 0.40 | 0.69 |
| (control\_norm ingroup\_center-1.01218644014995) - (descriptive\_norm ingroup\_center-1.01218644014995) | self\_enh\_framing | NA | 0.25 | 1038 | -0.24 | 0.81 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.25 | 1038 | 0.38 | 0.70 |
| (control\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.24 | 1038 | -1.35 | 0.18 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | 0.61 | 0.54 |
| (descriptive\_norm ingroup\_center-1.01218644014995) - descriptive\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.24 | 1038 | -1.09 | 0.28 |
| control\_norm ingroup\_center1.01218644014995 - descriptive\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.25 | 1038 | -1.69 | 0.09 |

# Control vs Convention  
atlist <- list(ingroup\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "convention\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*ingroup\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | ingroup\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -1.01 | control\_framing | 4.26 | 0.16 | 1038 | 3.95 | 4.58 |
| convention\_norm | -1.01 | control\_framing | 4.60 | 0.20 | 1038 | 4.22 | 4.98 |
| control\_norm | 1.01 | control\_framing | 4.63 | 0.18 | 1038 | 4.28 | 4.99 |
| convention\_norm | 1.01 | control\_framing | 4.40 | 0.19 | 1038 | 4.03 | 4.77 |
| control\_norm | -1.01 | pro\_env\_framing | 4.62 | 0.18 | 1038 | 4.27 | 4.96 |
| convention\_norm | -1.01 | pro\_env\_framing | 4.61 | 0.17 | 1038 | 4.28 | 4.94 |
| control\_norm | 1.01 | pro\_env\_framing | 4.61 | 0.19 | 1038 | 4.23 | 4.99 |
| convention\_norm | 1.01 | pro\_env\_framing | 4.46 | 0.18 | 1038 | 4.11 | 4.81 |
| control\_norm | -1.01 | self\_enh\_framing | 4.28 | 0.17 | 1038 | 3.94 | 4.62 |
| convention\_norm | -1.01 | self\_enh\_framing | 4.25 | 0.18 | 1038 | 3.89 | 4.61 |
| control\_norm | 1.01 | self\_enh\_framing | 4.19 | 0.19 | 1038 | 3.82 | 4.55 |
| convention\_norm | 1.01 | self\_enh\_framing | 4.69 | 0.21 | 1038 | 4.29 | 5.09 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm ingroup\_center-1.01218644014995) - (convention\_norm ingroup\_center-1.01218644014995) | control\_framing | NA | 0.25 | 1038 | -1.32 | 0.19 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -1.56 | 0.12 |
| (control\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.25 | 1038 | -0.55 | 0.58 |
| (convention\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.27 | 1038 | -0.13 | 0.90 |
| (convention\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.27 | 1038 | 0.74 | 0.46 |
| control\_norm ingroup\_center1.01218644014995 - convention\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.26 | 1038 | 0.90 | 0.37 |
| (control\_norm ingroup\_center-1.01218644014995) - (convention\_norm ingroup\_center-1.01218644014995) | pro\_env\_framing | NA | 0.24 | 1038 | 0.02 | 0.99 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.04 | 0.97 |
| (control\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.25 | 1038 | 0.62 | 0.54 |
| (convention\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | 0.02 | 0.98 |
| (convention\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.25 | 1038 | 0.59 | 0.55 |
| control\_norm ingroup\_center1.01218644014995 - convention\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | 0.55 | 0.59 |
| (control\_norm ingroup\_center-1.01218644014995) - (convention\_norm ingroup\_center-1.01218644014995) | self\_enh\_framing | NA | 0.25 | 1038 | 0.14 | 0.89 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.25 | 1038 | 0.38 | 0.70 |
| (control\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.27 | 1038 | -1.51 | 0.13 |
| (convention\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | 0.24 | 0.81 |
| (convention\_norm ingroup\_center-1.01218644014995) - convention\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.29 | 1038 | -1.51 | 0.13 |
| control\_norm ingroup\_center1.01218644014995 - convention\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.28 | 1038 | -1.82 | 0.07 |

# Control vs Social Norm  
atlist <- list(ingroup\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "social\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*ingroup\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | ingroup\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -1.01 | control\_framing | 4.26 | 0.16 | 1038 | 3.95 | 4.58 |
| social\_norm | -1.01 | control\_framing | 4.15 | 0.15 | 1038 | 3.86 | 4.45 |
| control\_norm | 1.01 | control\_framing | 4.63 | 0.18 | 1038 | 4.28 | 4.99 |
| social\_norm | 1.01 | control\_framing | 4.17 | 0.17 | 1038 | 3.83 | 4.50 |
| control\_norm | -1.01 | pro\_env\_framing | 4.62 | 0.18 | 1038 | 4.27 | 4.96 |
| social\_norm | -1.01 | pro\_env\_framing | 4.50 | 0.19 | 1038 | 4.12 | 4.87 |
| control\_norm | 1.01 | pro\_env\_framing | 4.61 | 0.19 | 1038 | 4.23 | 4.99 |
| social\_norm | 1.01 | pro\_env\_framing | 4.35 | 0.19 | 1038 | 3.98 | 4.72 |
| control\_norm | -1.01 | self\_enh\_framing | 4.28 | 0.17 | 1038 | 3.94 | 4.62 |
| social\_norm | -1.01 | self\_enh\_framing | 4.01 | 0.21 | 1038 | 3.60 | 4.43 |
| control\_norm | 1.01 | self\_enh\_framing | 4.19 | 0.19 | 1038 | 3.82 | 4.55 |
| social\_norm | 1.01 | self\_enh\_framing | 4.48 | 0.19 | 1038 | 4.10 | 4.85 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm ingroup\_center-1.01218644014995) - (social\_norm ingroup\_center-1.01218644014995) | control\_framing | NA | 0.22 | 1038 | 0.50 | 0.62 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -1.56 | 0.12 |
| (control\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | 0.42 | 0.67 |
| (social\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.23 | 1038 | -2.05 | 0.04 |
| (social\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.22 | 1038 | -0.05 | 0.96 |
| control\_norm ingroup\_center1.01218644014995 - social\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.25 | 1038 | 1.88 | 0.06 |
| (control\_norm ingroup\_center-1.01218644014995) - (social\_norm ingroup\_center-1.01218644014995) | pro\_env\_framing | NA | 0.26 | 1038 | 0.47 | 0.64 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.04 | 0.97 |
| (control\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | 1.03 | 0.30 |
| (social\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | -0.41 | 0.68 |
| (social\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.54 | 0.59 |
| control\_norm ingroup\_center1.01218644014995 - social\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.94 | 0.35 |
| (control\_norm ingroup\_center-1.01218644014995) - (social\_norm ingroup\_center-1.01218644014995) | self\_enh\_framing | NA | 0.27 | 1038 | 0.99 | 0.32 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.25 | 1038 | 0.38 | 0.70 |
| (control\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | -0.75 | 0.46 |
| (social\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.28 | 1038 | -0.62 | 0.54 |
| (social\_norm ingroup\_center-1.01218644014995) - social\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.30 | 1038 | -1.57 | 0.12 |
| control\_norm ingroup\_center1.01218644014995 - social\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.27 | 1038 | -1.09 | 0.28 |

# Control vs Moral Norm  
atlist <- list(ingroup\_center = c(sd\_below, sd\_above), norm\_condition = c("control\_norm", "moral\_norm"))  
  
combinations <- emmeans(mod\_mice, ~ norm\_condition\*ingroup\_center | framing\_condition, at=atlist)  
  
combinations %>% knitr::kable(digits = 2)

| norm\_condition | ingroup\_center | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- | --- |
| control\_norm | -1.01 | control\_framing | 4.26 | 0.16 | 1038 | 3.95 | 4.58 |
| moral\_norm | -1.01 | control\_framing | 4.13 | 0.20 | 1038 | 3.74 | 4.51 |
| control\_norm | 1.01 | control\_framing | 4.63 | 0.18 | 1038 | 4.28 | 4.99 |
| moral\_norm | 1.01 | control\_framing | 4.33 | 0.18 | 1038 | 3.99 | 4.68 |
| control\_norm | -1.01 | pro\_env\_framing | 4.62 | 0.18 | 1038 | 4.27 | 4.96 |
| moral\_norm | -1.01 | pro\_env\_framing | 4.34 | 0.18 | 1038 | 3.98 | 4.70 |
| control\_norm | 1.01 | pro\_env\_framing | 4.61 | 0.19 | 1038 | 4.23 | 4.99 |
| moral\_norm | 1.01 | pro\_env\_framing | 4.41 | 0.18 | 1038 | 4.07 | 4.76 |
| control\_norm | -1.01 | self\_enh\_framing | 4.28 | 0.17 | 1038 | 3.94 | 4.62 |
| moral\_norm | -1.01 | self\_enh\_framing | 4.61 | 0.18 | 1038 | 4.25 | 4.96 |
| control\_norm | 1.01 | self\_enh\_framing | 4.19 | 0.19 | 1038 | 3.82 | 4.55 |
| moral\_norm | 1.01 | self\_enh\_framing | 4.15 | 0.19 | 1038 | 3.78 | 4.52 |

contrast(combinations, "pairwise", by ="framing\_condition", adjust = "none") %>% knitr::kable(digits = c(NA,4,NA,2,2,2,2,3))

| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| (control\_norm ingroup\_center-1.01218644014995) - (moral\_norm ingroup\_center-1.01218644014995) | control\_framing | NA | 0.26 | 1038 | 0.54 | 0.59 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -1.56 | 0.12 |
| (control\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -0.29 | 0.77 |
| (moral\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.27 | 1038 | -1.91 | 0.06 |
| (moral\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.24 | 1038 | -0.87 | 0.38 |
| control\_norm ingroup\_center1.01218644014995 - moral\_norm ingroup\_center1.01218644014995 | control\_framing | NA | 0.25 | 1038 | 1.20 | 0.23 |
| (control\_norm ingroup\_center-1.01218644014995) - (moral\_norm ingroup\_center-1.01218644014995) | pro\_env\_framing | NA | 0.25 | 1038 | 1.09 | 0.27 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | 0.04 | 0.97 |
| (control\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.25 | 1038 | 0.81 | 0.42 |
| (moral\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.27 | 1038 | -1.00 | 0.32 |
| (moral\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | -0.28 | 0.78 |
| control\_norm ingroup\_center1.01218644014995 - moral\_norm ingroup\_center1.01218644014995 | pro\_env\_framing | NA | 0.26 | 1038 | 0.73 | 0.46 |
| (control\_norm ingroup\_center-1.01218644014995) - (moral\_norm ingroup\_center-1.01218644014995) | self\_enh\_framing | NA | 0.25 | 1038 | -1.29 | 0.20 |
| (control\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.25 | 1038 | 0.38 | 0.70 |
| (control\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | 0.54 | 0.59 |
| (moral\_norm ingroup\_center-1.01218644014995) - control\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | 1.61 | 0.11 |
| (moral\_norm ingroup\_center-1.01218644014995) - moral\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.27 | 1038 | 1.72 | 0.09 |
| control\_norm ingroup\_center1.01218644014995 - moral\_norm ingroup\_center1.01218644014995 | self\_enh\_framing | NA | 0.26 | 1038 | 0.15 | 0.88 |

## Ingroup Identification Interactions

### Ingroup x Norm

H5: There will be a two-way interaction between ingroup identification and norm condition.

Is the slope of the relationship between ingroup identification & consumer intentions stronger in any one of the norm conditions compared to the others?

ing\_norm\_slopes <- emtrends(mod\_mice, pairwise~norm\_condition, var = "ingroup\_center", adjust = "none")  
  
ing\_norm\_slopes$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | ingroup\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm | 0.04 | 0.07 | 1038 | -0.10 | 0.18 |
| descriptive\_norm | 0.06 | 0.08 | 1038 | -0.09 | 0.21 |
| convention\_norm | 0.02 | 0.08 | 1038 | -0.14 | 0.17 |
| social\_norm | 0.05 | 0.08 | 1038 | -0.09 | 0.20 |
| moral\_norm | -0.03 | 0.07 | 1038 | -0.17 | 0.11 |

ing\_norm\_slopes$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3)) # correct p-values

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.01 | 0.11 | 1038 | -0.14 | 0.890 |
| control\_norm - convention\_norm | 0.03 | 0.11 | 1038 | 0.26 | 0.792 |
| control\_norm - social\_norm | -0.01 | 0.10 | 1038 | -0.11 | 0.916 |
| control\_norm - moral\_norm | 0.07 | 0.10 | 1038 | 0.70 | 0.484 |
| descriptive\_norm - convention\_norm | 0.04 | 0.11 | 1038 | 0.39 | 0.698 |
| descriptive\_norm - social\_norm | 0.00 | 0.11 | 1038 | 0.03 | 0.974 |
| descriptive\_norm - moral\_norm | 0.09 | 0.11 | 1038 | 0.81 | 0.416 |
| convention\_norm - social\_norm | -0.04 | 0.11 | 1038 | -0.36 | 0.719 |
| convention\_norm - moral\_norm | 0.04 | 0.11 | 1038 | 0.42 | 0.677 |
| social\_norm - moral\_norm | 0.08 | 0.11 | 1038 | 0.79 | 0.429 |

Confidence interval

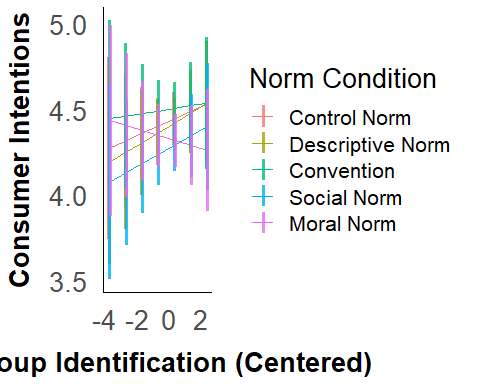
confint(ing\_norm\_slopes$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | -0.01 | 0.11 | 1038 | -0.22 | 0.19 |
| control\_norm - convention\_norm | 0.03 | 0.11 | 1038 | -0.18 | 0.23 |
| control\_norm - social\_norm | -0.01 | 0.10 | 1038 | -0.21 | 0.19 |
| control\_norm - moral\_norm | 0.07 | 0.10 | 1038 | -0.13 | 0.27 |
| descriptive\_norm - convention\_norm | 0.04 | 0.11 | 1038 | -0.17 | 0.26 |
| descriptive\_norm - social\_norm | 0.00 | 0.11 | 1038 | -0.21 | 0.21 |
| descriptive\_norm - moral\_norm | 0.09 | 0.11 | 1038 | -0.12 | 0.30 |
| convention\_norm - social\_norm | -0.04 | 0.11 | 1038 | -0.25 | 0.17 |
| convention\_norm - moral\_norm | 0.04 | 0.11 | 1038 | -0.16 | 0.25 |
| social\_norm - moral\_norm | 0.08 | 0.11 | 1038 | -0.12 | 0.29 |

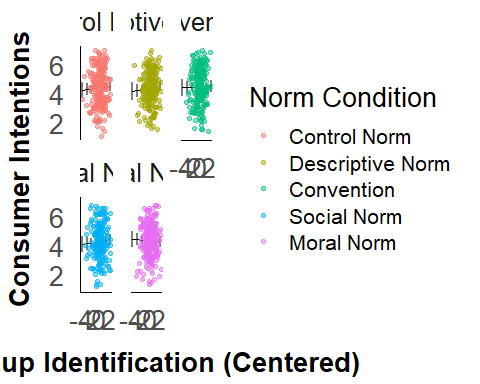
# On a single graph  
describe(average\_df$ingroup\_center)

## vars n mean sd median trimmed mad min max range skew kurtosis se  
## X1 1 1133 0 1.01 0.01 0.03 0.95 -3.64 2.36 6 -0.27 0.17 0.03

at\_list <- list(ingroup\_center = seq(-3.69, 2.41, by = 1))  
  
# without data overlaid  
emmip(mod\_mice, norm\_condition ~ ingroup\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Ingroup Identification (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ ingroup\_center | norm\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Ingroup Identification (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + geom\_point(data = average\_df, aes(x = ingroup\_center, y = consumer\_intentions, color = norm\_condition), alpha = 0.5) + facet\_wrap(~norm\_condition, labeller = labeller(norm\_condition = norm\_labs)) +theme\_apa() + text\_settings



### Ingroup x Framing

Is the slope of the relationship between ingroup identification & consumer intentions stronger in any one of the framing conditions compared to the others?

ing\_frame\_trends <- emtrends(mod\_mice, pairwise~framing\_condition, var = "ingroup\_center", adjust = "none")  
  
ing\_frame\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| framing\_condition | ingroup\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing | 0.04 | 0.06 | 1038 | -0.08 | 0.15 |
| pro\_env\_framing | -0.01 | 0.06 | 1038 | -0.13 | 0.10 |
| self\_enh\_framing | 0.06 | 0.06 | 1038 | -0.06 | 0.18 |

ing\_frame\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

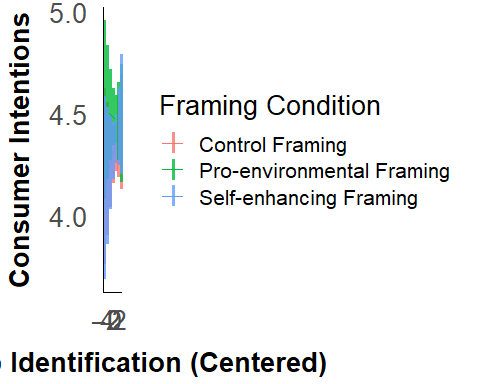
| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | 0.05 | 0.08 | 1038 | 0.58 | 0.563 |
| control\_framing - self\_enh\_framing | -0.02 | 0.08 | 1038 | -0.30 | 0.768 |
| pro\_env\_framing - self\_enh\_framing | -0.07 | 0.08 | 1038 | -0.86 | 0.392 |

Confidence interval

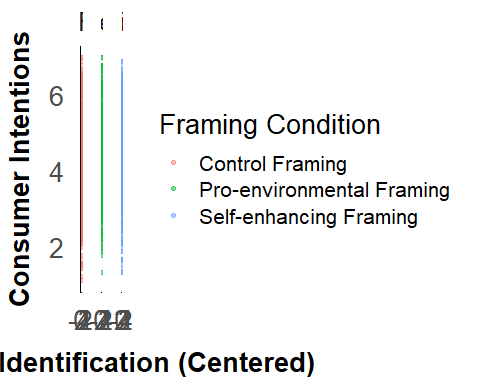
confint(ing\_frame\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| control\_framing - pro\_env\_framing | 0.05 | 0.08 | 1038 | -0.11 | 0.21 |
| control\_framing - self\_enh\_framing | -0.02 | 0.08 | 1038 | -0.19 | 0.14 |
| pro\_env\_framing - self\_enh\_framing | -0.07 | 0.08 | 1038 | -0.23 | 0.09 |

# without data overlaid  
emmip(mod\_mice, framing\_condition ~ ingroup\_center, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Ingroup Identification (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



# with data overlaid  
emmip(mod\_mice, ~ ingroup\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 0.8, alpha = 0.5), xlab = "Ingroup Identification (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) + geom\_point(data = average\_df, aes(x = ingroup\_center, y = consumer\_intentions, color = framing\_condition), alpha = 0.5) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



### Ingroup x Norm x Framing

Exploratory RQ1: Is there a three-way interaction between ingroup identification, framing, and norm condition?

ing\_frame\_norm\_trends <- emtrends(mod\_mice, pairwise~norm\_condition | framing\_condition, var = "ingroup\_center", adjust = "none")  
  
ing\_frame\_norm\_trends$emtrends %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | ingroup\_center.trend | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 0.18 | 0.12 | 1038 | -0.05 | 0.41 |
| descriptive\_norm | control\_framing | -0.01 | 0.15 | 1038 | -0.31 | 0.28 |
| convention\_norm | control\_framing | -0.10 | 0.13 | 1038 | -0.36 | 0.16 |
| social\_norm | control\_framing | 0.01 | 0.11 | 1038 | -0.21 | 0.22 |
| moral\_norm | control\_framing | 0.10 | 0.12 | 1038 | -0.13 | 0.33 |
| control\_norm | pro\_env\_framing | -0.01 | 0.13 | 1038 | -0.26 | 0.25 |
| descriptive\_norm | pro\_env\_framing | 0.06 | 0.13 | 1038 | -0.20 | 0.31 |
| convention\_norm | pro\_env\_framing | -0.07 | 0.12 | 1038 | -0.32 | 0.17 |
| social\_norm | pro\_env\_framing | -0.07 | 0.13 | 1038 | -0.33 | 0.19 |
| moral\_norm | pro\_env\_framing | 0.04 | 0.13 | 1038 | -0.22 | 0.29 |
| control\_norm | self\_enh\_framing | -0.05 | 0.13 | 1038 | -0.29 | 0.20 |
| descriptive\_norm | self\_enh\_framing | 0.13 | 0.12 | 1038 | -0.10 | 0.36 |
| convention\_norm | self\_enh\_framing | 0.22 | 0.14 | 1038 | -0.07 | 0.50 |
| social\_norm | self\_enh\_framing | 0.23 | 0.15 | 1038 | -0.06 | 0.51 |
| moral\_norm | self\_enh\_framing | -0.23 | 0.13 | 1038 | -0.49 | 0.03 |

ing\_frame\_norm\_trends$contrasts %>%  
 knitr::kable(digits = c(NA,NA,2,2,2,2,3))

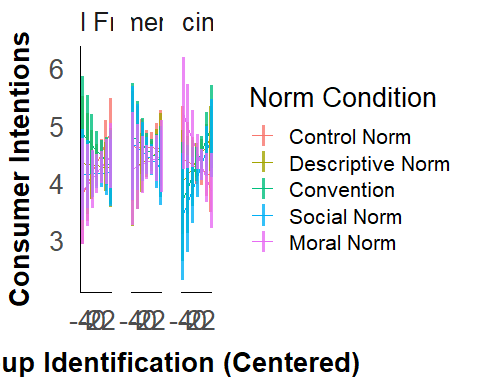
| contrast | framing\_condition | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.20 | 0.19 | 1038 | 1.03 | 0.303 |
| control\_norm - convention\_norm | control\_framing | 0.28 | 0.18 | 1038 | 1.59 | 0.112 |
| control\_norm - social\_norm | control\_framing | 0.18 | 0.16 | 1038 | 1.10 | 0.270 |
| control\_norm - moral\_norm | control\_framing | 0.08 | 0.17 | 1038 | 0.48 | 0.631 |
| descriptive\_norm - convention\_norm | control\_framing | 0.08 | 0.20 | 1038 | 0.42 | 0.675 |
| descriptive\_norm - social\_norm | control\_framing | -0.02 | 0.19 | 1038 | -0.10 | 0.919 |
| descriptive\_norm - moral\_norm | control\_framing | -0.12 | 0.19 | 1038 | -0.61 | 0.544 |
| convention\_norm - social\_norm | control\_framing | -0.10 | 0.17 | 1038 | -0.60 | 0.550 |
| convention\_norm - moral\_norm | control\_framing | -0.20 | 0.18 | 1038 | -1.13 | 0.259 |
| social\_norm - moral\_norm | control\_framing | -0.10 | 0.16 | 1038 | -0.60 | 0.546 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.06 | 0.19 | 1038 | -0.34 | 0.733 |
| control\_norm - convention\_norm | pro\_env\_framing | 0.07 | 0.18 | 1038 | 0.38 | 0.704 |
| control\_norm - social\_norm | pro\_env\_framing | 0.07 | 0.19 | 1038 | 0.35 | 0.724 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.04 | 0.19 | 1038 | -0.23 | 0.820 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | 0.13 | 0.18 | 1038 | 0.73 | 0.465 |
| descriptive\_norm - social\_norm | pro\_env\_framing | 0.13 | 0.19 | 1038 | 0.70 | 0.486 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | 0.02 | 0.18 | 1038 | 0.11 | 0.909 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.00 | 0.18 | 1038 | -0.01 | 0.988 |
| convention\_norm - moral\_norm | pro\_env\_framing | -0.11 | 0.18 | 1038 | -0.61 | 0.539 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.11 | 0.19 | 1038 | -0.58 | 0.562 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.18 | 0.17 | 1038 | -1.03 | 0.305 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.27 | 0.19 | 1038 | -1.39 | 0.164 |
| control\_norm - social\_norm | self\_enh\_framing | -0.28 | 0.19 | 1038 | -1.44 | 0.150 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.18 | 0.18 | 1038 | 0.99 | 0.324 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.09 | 0.19 | 1038 | -0.48 | 0.632 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.10 | 0.19 | 1038 | -0.53 | 0.595 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.36 | 0.18 | 1038 | 2.01 | 0.045 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.01 | 0.21 | 1038 | -0.05 | 0.958 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.44 | 0.20 | 1038 | 2.28 | 0.023 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.46 | 0.20 | 1038 | 2.31 | 0.021 |

Confidence interval

confint(ing\_frame\_norm\_trends$contrasts) %>%  
 knitr::kable(digits = 2)

| contrast | framing\_condition | estimate | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm - descriptive\_norm | control\_framing | 0.20 | 0.19 | 1038 | -0.18 | 0.57 |
| control\_norm - convention\_norm | control\_framing | 0.28 | 0.18 | 1038 | -0.07 | 0.63 |
| control\_norm - social\_norm | control\_framing | 0.18 | 0.16 | 1038 | -0.14 | 0.49 |
| control\_norm - moral\_norm | control\_framing | 0.08 | 0.17 | 1038 | -0.25 | 0.41 |
| descriptive\_norm - convention\_norm | control\_framing | 0.08 | 0.20 | 1038 | -0.31 | 0.48 |
| descriptive\_norm - social\_norm | control\_framing | -0.02 | 0.19 | 1038 | -0.38 | 0.35 |
| descriptive\_norm - moral\_norm | control\_framing | -0.12 | 0.19 | 1038 | -0.49 | 0.26 |
| convention\_norm - social\_norm | control\_framing | -0.10 | 0.17 | 1038 | -0.44 | 0.23 |
| convention\_norm - moral\_norm | control\_framing | -0.20 | 0.18 | 1038 | -0.55 | 0.15 |
| social\_norm - moral\_norm | control\_framing | -0.10 | 0.16 | 1038 | -0.41 | 0.22 |
| control\_norm - descriptive\_norm | pro\_env\_framing | -0.06 | 0.19 | 1038 | -0.43 | 0.30 |
| control\_norm - convention\_norm | pro\_env\_framing | 0.07 | 0.18 | 1038 | -0.29 | 0.42 |
| control\_norm - social\_norm | pro\_env\_framing | 0.07 | 0.19 | 1038 | -0.30 | 0.43 |
| control\_norm - moral\_norm | pro\_env\_framing | -0.04 | 0.19 | 1038 | -0.41 | 0.32 |
| descriptive\_norm - convention\_norm | pro\_env\_framing | 0.13 | 0.18 | 1038 | -0.22 | 0.49 |
| descriptive\_norm - social\_norm | pro\_env\_framing | 0.13 | 0.19 | 1038 | -0.23 | 0.49 |
| descriptive\_norm - moral\_norm | pro\_env\_framing | 0.02 | 0.18 | 1038 | -0.34 | 0.38 |
| convention\_norm - social\_norm | pro\_env\_framing | 0.00 | 0.18 | 1038 | -0.36 | 0.36 |
| convention\_norm - moral\_norm | pro\_env\_framing | -0.11 | 0.18 | 1038 | -0.47 | 0.24 |
| social\_norm - moral\_norm | pro\_env\_framing | -0.11 | 0.19 | 1038 | -0.47 | 0.26 |
| control\_norm - descriptive\_norm | self\_enh\_framing | -0.18 | 0.17 | 1038 | -0.51 | 0.16 |
| control\_norm - convention\_norm | self\_enh\_framing | -0.27 | 0.19 | 1038 | -0.64 | 0.11 |
| control\_norm - social\_norm | self\_enh\_framing | -0.28 | 0.19 | 1038 | -0.65 | 0.10 |
| control\_norm - moral\_norm | self\_enh\_framing | 0.18 | 0.18 | 1038 | -0.18 | 0.53 |
| descriptive\_norm - convention\_norm | self\_enh\_framing | -0.09 | 0.19 | 1038 | -0.45 | 0.28 |
| descriptive\_norm - social\_norm | self\_enh\_framing | -0.10 | 0.19 | 1038 | -0.47 | 0.27 |
| descriptive\_norm - moral\_norm | self\_enh\_framing | 0.36 | 0.18 | 1038 | 0.01 | 0.70 |
| convention\_norm - social\_norm | self\_enh\_framing | -0.01 | 0.21 | 1038 | -0.41 | 0.39 |
| convention\_norm - moral\_norm | self\_enh\_framing | 0.44 | 0.20 | 1038 | 0.06 | 0.83 |
| social\_norm - moral\_norm | self\_enh\_framing | 0.46 | 0.20 | 1038 | 0.07 | 0.84 |

# without data overlaid  
emmip(mod\_mice, norm\_condition ~ ingroup\_center | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1.2, alpha = 0.8), xlab = "Ingroup Identification (Centered)", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



## All control/framing conditions compared to control/control condition

Exploratory RQ2: Which combination of framing and norm condition produced the strongest reductions in consumer intentions compared to the control condition?

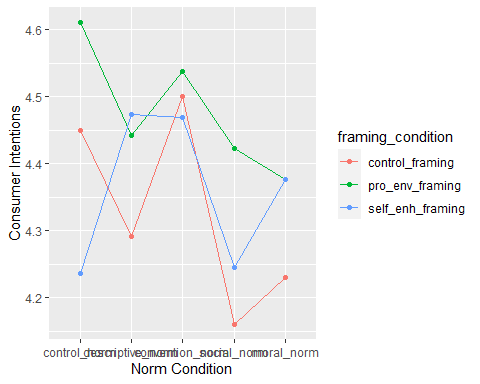
#chosen\_values <- list(norm\_condition = c("control\_norm", "descriptive\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
cell\_int\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, adjust = "none")  
  
cell\_int\_means$emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| descriptive\_norm | control\_framing | 4.29 | 0.13 | 1038 | 4.03 | 4.55 |
| convention\_norm | control\_framing | 4.50 | 0.14 | 1038 | 4.23 | 4.77 |
| social\_norm | control\_framing | 4.16 | 0.12 | 1038 | 3.93 | 4.39 |
| moral\_norm | control\_framing | 4.23 | 0.14 | 1038 | 3.95 | 4.51 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| descriptive\_norm | pro\_env\_framing | 4.44 | 0.13 | 1038 | 4.19 | 4.69 |
| convention\_norm | pro\_env\_framing | 4.54 | 0.12 | 1038 | 4.30 | 4.77 |
| social\_norm | pro\_env\_framing | 4.42 | 0.13 | 1038 | 4.16 | 4.69 |
| moral\_norm | pro\_env\_framing | 4.38 | 0.12 | 1038 | 4.14 | 4.61 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |
| descriptive\_norm | self\_enh\_framing | 4.47 | 0.12 | 1038 | 4.24 | 4.71 |
| convention\_norm | self\_enh\_framing | 4.47 | 0.13 | 1038 | 4.21 | 4.72 |
| social\_norm | self\_enh\_framing | 4.24 | 0.14 | 1038 | 3.98 | 4.51 |
| moral\_norm | self\_enh\_framing | 4.38 | 0.13 | 1038 | 4.12 | 4.63 |

cell\_int\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm control\_framing - descriptive\_norm control\_framing | 0.16 | 0.18 | 1038 | 0.87 | 0.384 |
| control\_norm control\_framing - convention\_norm control\_framing | -0.05 | 0.18 | 1038 | -0.27 | 0.783 |
| control\_norm control\_framing - social\_norm control\_framing | 0.29 | 0.17 | 1038 | 1.71 | 0.088 |
| control\_norm control\_framing - moral\_norm control\_framing | 0.22 | 0.19 | 1038 | 1.16 | 0.246 |
| control\_norm control\_framing - control\_norm pro\_env\_framing | -0.16 | 0.18 | 1038 | -0.91 | 0.364 |
| control\_norm control\_framing - descriptive\_norm pro\_env\_framing | 0.01 | 0.18 | 1038 | 0.04 | 0.965 |
| control\_norm control\_framing - convention\_norm pro\_env\_framing | -0.09 | 0.17 | 1038 | -0.51 | 0.607 |
| control\_norm control\_framing - social\_norm pro\_env\_framing | 0.03 | 0.18 | 1038 | 0.14 | 0.885 |
| control\_norm control\_framing - moral\_norm pro\_env\_framing | 0.07 | 0.17 | 1038 | 0.42 | 0.673 |
| control\_norm control\_framing - control\_norm self\_enh\_framing | 0.21 | 0.18 | 1038 | 1.21 | 0.227 |
| control\_norm control\_framing - descriptive\_norm self\_enh\_framing | -0.02 | 0.17 | 1038 | -0.14 | 0.886 |
| control\_norm control\_framing - convention\_norm self\_enh\_framing | -0.02 | 0.18 | 1038 | -0.11 | 0.910 |
| control\_norm control\_framing - social\_norm self\_enh\_framing | 0.20 | 0.18 | 1038 | 1.11 | 0.266 |
| control\_norm control\_framing - moral\_norm self\_enh\_framing | 0.07 | 0.18 | 1038 | 0.41 | 0.683 |
| descriptive\_norm control\_framing - convention\_norm control\_framing | -0.21 | 0.19 | 1038 | -1.09 | 0.275 |
| descriptive\_norm control\_framing - social\_norm control\_framing | 0.13 | 0.18 | 1038 | 0.75 | 0.455 |
| descriptive\_norm control\_framing - moral\_norm control\_framing | 0.06 | 0.20 | 1038 | 0.32 | 0.751 |
| descriptive\_norm control\_framing - control\_norm pro\_env\_framing | -0.32 | 0.18 | 1038 | -1.73 | 0.084 |
| descriptive\_norm control\_framing - descriptive\_norm pro\_env\_framing | -0.15 | 0.18 | 1038 | -0.81 | 0.418 |
| descriptive\_norm control\_framing - convention\_norm pro\_env\_framing | -0.25 | 0.18 | 1038 | -1.38 | 0.167 |
| descriptive\_norm control\_framing - social\_norm pro\_env\_framing | -0.13 | 0.19 | 1038 | -0.70 | 0.485 |
| descriptive\_norm control\_framing - moral\_norm pro\_env\_framing | -0.08 | 0.18 | 1038 | -0.47 | 0.635 |
| descriptive\_norm control\_framing - control\_norm self\_enh\_framing | 0.06 | 0.18 | 1038 | 0.31 | 0.759 |
| descriptive\_norm control\_framing - descriptive\_norm self\_enh\_framing | -0.18 | 0.18 | 1038 | -1.02 | 0.310 |
| descriptive\_norm control\_framing - convention\_norm self\_enh\_framing | -0.18 | 0.19 | 1038 | -0.96 | 0.339 |
| descriptive\_norm control\_framing - social\_norm self\_enh\_framing | 0.05 | 0.19 | 1038 | 0.25 | 0.805 |
| descriptive\_norm control\_framing - moral\_norm self\_enh\_framing | -0.08 | 0.18 | 1038 | -0.46 | 0.646 |
| convention\_norm control\_framing - social\_norm control\_framing | 0.34 | 0.18 | 1038 | 1.89 | 0.059 |
| convention\_norm control\_framing - moral\_norm control\_framing | 0.27 | 0.20 | 1038 | 1.36 | 0.173 |
| convention\_norm control\_framing - control\_norm pro\_env\_framing | -0.11 | 0.19 | 1038 | -0.59 | 0.554 |
| convention\_norm control\_framing - descriptive\_norm pro\_env\_framing | 0.06 | 0.19 | 1038 | 0.31 | 0.755 |
| convention\_norm control\_framing - convention\_norm pro\_env\_framing | -0.04 | 0.18 | 1038 | -0.20 | 0.838 |
| convention\_norm control\_framing - social\_norm pro\_env\_framing | 0.08 | 0.19 | 1038 | 0.40 | 0.688 |
| convention\_norm control\_framing - moral\_norm pro\_env\_framing | 0.12 | 0.18 | 1038 | 0.68 | 0.499 |
| convention\_norm control\_framing - control\_norm self\_enh\_framing | 0.26 | 0.19 | 1038 | 1.42 | 0.157 |
| convention\_norm control\_framing - descriptive\_norm self\_enh\_framing | 0.03 | 0.18 | 1038 | 0.14 | 0.887 |
| convention\_norm control\_framing - convention\_norm self\_enh\_framing | 0.03 | 0.19 | 1038 | 0.16 | 0.872 |
| convention\_norm control\_framing - social\_norm self\_enh\_framing | 0.26 | 0.19 | 1038 | 1.32 | 0.187 |
| convention\_norm control\_framing - moral\_norm self\_enh\_framing | 0.12 | 0.19 | 1038 | 0.66 | 0.511 |
| social\_norm control\_framing - moral\_norm control\_framing | -0.07 | 0.18 | 1038 | -0.38 | 0.705 |
| social\_norm control\_framing - control\_norm pro\_env\_framing | -0.45 | 0.17 | 1038 | -2.61 | 0.009 |
| social\_norm control\_framing - descriptive\_norm pro\_env\_framing | -0.28 | 0.17 | 1038 | -1.62 | 0.105 |
| social\_norm control\_framing - convention\_norm pro\_env\_framing | -0.38 | 0.17 | 1038 | -2.27 | 0.023 |
| social\_norm control\_framing - social\_norm pro\_env\_framing | -0.26 | 0.18 | 1038 | -1.48 | 0.138 |
| social\_norm control\_framing - moral\_norm pro\_env\_framing | -0.22 | 0.17 | 1038 | -1.30 | 0.195 |
| social\_norm control\_framing - control\_norm self\_enh\_framing | -0.08 | 0.17 | 1038 | -0.44 | 0.659 |
| social\_norm control\_framing - descriptive\_norm self\_enh\_framing | -0.31 | 0.17 | 1038 | -1.86 | 0.063 |
| social\_norm control\_framing - convention\_norm self\_enh\_framing | -0.31 | 0.17 | 1038 | -1.78 | 0.076 |
| social\_norm control\_framing - social\_norm self\_enh\_framing | -0.08 | 0.18 | 1038 | -0.47 | 0.637 |
| social\_norm control\_framing - moral\_norm self\_enh\_framing | -0.22 | 0.17 | 1038 | -1.25 | 0.212 |
| moral\_norm control\_framing - control\_norm pro\_env\_framing | -0.38 | 0.19 | 1038 | -1.98 | 0.048 |
| moral\_norm control\_framing - descriptive\_norm pro\_env\_framing | -0.21 | 0.19 | 1038 | -1.10 | 0.271 |
| moral\_norm control\_framing - convention\_norm pro\_env\_framing | -0.31 | 0.19 | 1038 | -1.65 | 0.098 |
| moral\_norm control\_framing - social\_norm pro\_env\_framing | -0.19 | 0.20 | 1038 | -0.99 | 0.324 |
| moral\_norm control\_framing - moral\_norm pro\_env\_framing | -0.15 | 0.19 | 1038 | -0.78 | 0.433 |
| moral\_norm control\_framing - control\_norm self\_enh\_framing | -0.01 | 0.19 | 1038 | -0.03 | 0.975 |
| moral\_norm control\_framing - descriptive\_norm self\_enh\_framing | -0.24 | 0.19 | 1038 | -1.30 | 0.194 |
| moral\_norm control\_framing - convention\_norm self\_enh\_framing | -0.24 | 0.19 | 1038 | -1.24 | 0.216 |
| moral\_norm control\_framing - social\_norm self\_enh\_framing | -0.01 | 0.20 | 1038 | -0.07 | 0.941 |
| moral\_norm control\_framing - moral\_norm self\_enh\_framing | -0.15 | 0.19 | 1038 | -0.76 | 0.447 |
| control\_norm pro\_env\_framing - descriptive\_norm pro\_env\_framing | 0.17 | 0.18 | 1038 | 0.94 | 0.349 |
| control\_norm pro\_env\_framing - convention\_norm pro\_env\_framing | 0.07 | 0.17 | 1038 | 0.42 | 0.671 |
| control\_norm pro\_env\_framing - social\_norm pro\_env\_framing | 0.19 | 0.19 | 1038 | 1.02 | 0.310 |
| control\_norm pro\_env\_framing - moral\_norm pro\_env\_framing | 0.23 | 0.18 | 1038 | 1.33 | 0.183 |
| control\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.38 | 0.18 | 1038 | 2.08 | 0.037 |
| control\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | 0.14 | 0.18 | 1038 | 0.78 | 0.438 |
| control\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | 0.14 | 0.18 | 1038 | 0.77 | 0.439 |
| control\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.37 | 0.19 | 1038 | 1.95 | 0.051 |
| control\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.23 | 0.18 | 1038 | 1.29 | 0.196 |
| descriptive\_norm pro\_env\_framing - convention\_norm pro\_env\_framing | -0.10 | 0.17 | 1038 | -0.55 | 0.583 |
| descriptive\_norm pro\_env\_framing - social\_norm pro\_env\_framing | 0.02 | 0.18 | 1038 | 0.10 | 0.921 |
| descriptive\_norm pro\_env\_framing - moral\_norm pro\_env\_framing | 0.06 | 0.18 | 1038 | 0.37 | 0.713 |
| descriptive\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.21 | 0.18 | 1038 | 1.14 | 0.254 |
| descriptive\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | -0.03 | 0.18 | 1038 | -0.18 | 0.854 |
| descriptive\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | -0.03 | 0.18 | 1038 | -0.15 | 0.878 |
| descriptive\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.20 | 0.19 | 1038 | 1.05 | 0.294 |
| descriptive\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.07 | 0.18 | 1038 | 0.36 | 0.720 |
| convention\_norm pro\_env\_framing - social\_norm pro\_env\_framing | 0.11 | 0.18 | 1038 | 0.64 | 0.522 |
| convention\_norm pro\_env\_framing - moral\_norm pro\_env\_framing | 0.16 | 0.17 | 1038 | 0.95 | 0.341 |
| convention\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.30 | 0.17 | 1038 | 1.74 | 0.082 |
| convention\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | 0.06 | 0.17 | 1038 | 0.37 | 0.710 |
| convention\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | 0.07 | 0.18 | 1038 | 0.38 | 0.701 |
| convention\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.29 | 0.18 | 1038 | 1.62 | 0.106 |
| convention\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.16 | 0.17 | 1038 | 0.92 | 0.358 |
| social\_norm pro\_env\_framing - moral\_norm pro\_env\_framing | 0.05 | 0.18 | 1038 | 0.26 | 0.796 |
| social\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.19 | 0.18 | 1038 | 1.02 | 0.308 |
| social\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | -0.05 | 0.18 | 1038 | -0.28 | 0.778 |
| social\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | -0.05 | 0.19 | 1038 | -0.25 | 0.804 |
| social\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.18 | 0.19 | 1038 | 0.93 | 0.351 |
| social\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.05 | 0.19 | 1038 | 0.25 | 0.801 |
| moral\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.14 | 0.17 | 1038 | 0.81 | 0.419 |
| moral\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | -0.10 | 0.17 | 1038 | -0.57 | 0.569 |
| moral\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | -0.09 | 0.18 | 1038 | -0.52 | 0.600 |
| moral\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.13 | 0.18 | 1038 | 0.72 | 0.469 |
| moral\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.00 | 0.18 | 1038 | 0.00 | 0.999 |
| control\_norm self\_enh\_framing - descriptive\_norm self\_enh\_framing | -0.24 | 0.18 | 1038 | -1.36 | 0.174 |
| control\_norm self\_enh\_framing - convention\_norm self\_enh\_framing | -0.23 | 0.18 | 1038 | -1.29 | 0.198 |
| control\_norm self\_enh\_framing - social\_norm self\_enh\_framing | -0.01 | 0.19 | 1038 | -0.05 | 0.962 |
| control\_norm self\_enh\_framing - moral\_norm self\_enh\_framing | -0.14 | 0.18 | 1038 | -0.78 | 0.435 |
| descriptive\_norm self\_enh\_framing - convention\_norm self\_enh\_framing | 0.00 | 0.18 | 1038 | 0.03 | 0.980 |
| descriptive\_norm self\_enh\_framing - social\_norm self\_enh\_framing | 0.23 | 0.18 | 1038 | 1.25 | 0.210 |
| descriptive\_norm self\_enh\_framing - moral\_norm self\_enh\_framing | 0.10 | 0.18 | 1038 | 0.55 | 0.581 |
| convention\_norm self\_enh\_framing - social\_norm self\_enh\_framing | 0.22 | 0.19 | 1038 | 1.20 | 0.232 |
| convention\_norm self\_enh\_framing - moral\_norm self\_enh\_framing | 0.09 | 0.18 | 1038 | 0.51 | 0.613 |
| social\_norm self\_enh\_framing - moral\_norm self\_enh\_framing | -0.13 | 0.19 | 1038 | -0.70 | 0.482 |

emmip(mod\_mice, framing\_condition ~ norm\_condition, CIs = FALSE, xlab = "Norm Condition", ylab = "Consumer Intentions")



# Exploratory Analyses

## Effect of framings across norm conditions

Comparing consumer intentions for each norm condition between each framing condition:

# Control norm  
chosen\_values <- list(norm\_condition = c("control\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
control\_norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, at = chosen\_values, adjust = "none")  
  
control\_norm\_means$emmeans %>%   
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| control\_norm | control\_framing | 4.45 | 0.12 | 1038 | 4.21 | 4.69 |
| control\_norm | pro\_env\_framing | 4.61 | 0.13 | 1038 | 4.36 | 4.86 |
| control\_norm | self\_enh\_framing | 4.24 | 0.13 | 1038 | 3.99 | 4.48 |

control\_norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| control\_norm control\_framing - control\_norm pro\_env\_framing | -0.16 | 0.18 | 1038 | -0.91 | 0.364 |
| control\_norm control\_framing - control\_norm self\_enh\_framing | 0.21 | 0.18 | 1038 | 1.21 | 0.227 |
| control\_norm pro\_env\_framing - control\_norm self\_enh\_framing | 0.38 | 0.18 | 1038 | 2.08 | 0.037 |

eff\_size(control\_norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (control\_norm control\_framing - control\_norm pro\_env\_framing) | -0.15 | 0.17 | 1038 | -0.48 | 0.18 |
| (control\_norm control\_framing - control\_norm self\_enh\_framing) | 0.20 | 0.17 | 1038 | -0.12 | 0.52 |
| (control\_norm pro\_env\_framing - control\_norm self\_enh\_framing) | 0.35 | 0.17 | 1038 | 0.02 | 0.68 |

# Descriptive norm  
chosen\_values <- list(norm\_condition = c("descriptive\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
descr\_norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, at = chosen\_values, adjust = "none")  
  
descr\_norm\_means$emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| descriptive\_norm | control\_framing | 4.29 | 0.13 | 1038 | 4.03 | 4.55 |
| descriptive\_norm | pro\_env\_framing | 4.44 | 0.13 | 1038 | 4.19 | 4.69 |
| descriptive\_norm | self\_enh\_framing | 4.47 | 0.12 | 1038 | 4.24 | 4.71 |

descr\_norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| descriptive\_norm control\_framing - descriptive\_norm pro\_env\_framing | -0.15 | 0.18 | 1038 | -0.81 | 0.418 |
| descriptive\_norm control\_framing - descriptive\_norm self\_enh\_framing | -0.18 | 0.18 | 1038 | -1.02 | 0.310 |
| descriptive\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing | -0.03 | 0.18 | 1038 | -0.18 | 0.854 |

eff\_size(descr\_norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (descriptive\_norm control\_framing - descriptive\_norm pro\_env\_framing) | -0.14 | 0.17 | 1038 | -0.48 | 0.20 |
| (descriptive\_norm control\_framing - descriptive\_norm self\_enh\_framing) | -0.17 | 0.17 | 1038 | -0.50 | 0.16 |
| (descriptive\_norm pro\_env\_framing - descriptive\_norm self\_enh\_framing) | -0.03 | 0.17 | 1038 | -0.36 | 0.29 |

# Convention norm  
chosen\_values <- list(norm\_condition = c("convention\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
conv\_norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, at = chosen\_values, adjust = "none")  
  
conv\_norm\_means$emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| convention\_norm | control\_framing | 4.50 | 0.14 | 1038 | 4.23 | 4.77 |
| convention\_norm | pro\_env\_framing | 4.54 | 0.12 | 1038 | 4.30 | 4.77 |
| convention\_norm | self\_enh\_framing | 4.47 | 0.13 | 1038 | 4.21 | 4.72 |

conv\_norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| convention\_norm control\_framing - convention\_norm pro\_env\_framing | -0.04 | 0.18 | 1038 | -0.20 | 0.838 |
| convention\_norm control\_framing - convention\_norm self\_enh\_framing | 0.03 | 0.19 | 1038 | 0.16 | 0.872 |
| convention\_norm pro\_env\_framing - convention\_norm self\_enh\_framing | 0.07 | 0.18 | 1038 | 0.38 | 0.701 |

eff\_size(conv\_norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (convention\_norm control\_framing - convention\_norm pro\_env\_framing) | -0.03 | 0.17 | 1038 | -0.37 | 0.30 |
| (convention\_norm control\_framing - convention\_norm self\_enh\_framing) | 0.03 | 0.18 | 1038 | -0.32 | 0.38 |
| (convention\_norm pro\_env\_framing - convention\_norm self\_enh\_framing) | 0.06 | 0.16 | 1038 | -0.26 | 0.39 |

# Social norm  
chosen\_values <- list(norm\_condition = c("social\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
soc\_norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, at = chosen\_values, adjust = "none")  
  
soc\_norm\_means$emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| social\_norm | control\_framing | 4.16 | 0.12 | 1038 | 3.93 | 4.39 |
| social\_norm | pro\_env\_framing | 4.42 | 0.13 | 1038 | 4.16 | 4.69 |
| social\_norm | self\_enh\_framing | 4.24 | 0.14 | 1038 | 3.98 | 4.51 |

soc\_norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| social\_norm control\_framing - social\_norm pro\_env\_framing | -0.26 | 0.18 | 1038 | -1.48 | 0.138 |
| social\_norm control\_framing - social\_norm self\_enh\_framing | -0.08 | 0.18 | 1038 | -0.47 | 0.637 |
| social\_norm pro\_env\_framing - social\_norm self\_enh\_framing | 0.18 | 0.19 | 1038 | 0.93 | 0.351 |

eff\_size(soc\_norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (social\_norm control\_framing - social\_norm pro\_env\_framing) | -0.25 | 0.17 | 1038 | -0.57 | 0.08 |
| (social\_norm control\_framing - social\_norm self\_enh\_framing) | -0.08 | 0.17 | 1038 | -0.41 | 0.25 |
| (social\_norm pro\_env\_framing - social\_norm self\_enh\_framing) | 0.17 | 0.18 | 1038 | -0.18 | 0.52 |

# Moral norm  
chosen\_values <- list(norm\_condition = c("moral\_norm"), framing\_condition = c("control\_framing", "pro\_env\_framing", "self\_enh\_framing"))  
  
moral\_norm\_means <- emmeans(mod\_mice, pairwise ~ norm\_condition\*framing\_condition, at = chosen\_values, adjust = "none")  
  
moral\_norm\_means$emmeans %>%  
 knitr::kable(digits = 2)

| norm\_condition | framing\_condition | emmean | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- | --- |
| moral\_norm | control\_framing | 4.23 | 0.14 | 1038 | 3.95 | 4.51 |
| moral\_norm | pro\_env\_framing | 4.38 | 0.12 | 1038 | 4.14 | 4.61 |
| moral\_norm | self\_enh\_framing | 4.38 | 0.13 | 1038 | 4.12 | 4.63 |

moral\_norm\_means$contrasts %>%  
 knitr::kable(digits = c(NA,2,2,2,2,3))

| contrast | estimate | SE | df | t.ratio | p.value |
| --- | --- | --- | --- | --- | --- |
| moral\_norm control\_framing - moral\_norm pro\_env\_framing | -0.15 | 0.19 | 1038 | -0.78 | 0.433 |
| moral\_norm control\_framing - moral\_norm self\_enh\_framing | -0.15 | 0.19 | 1038 | -0.76 | 0.447 |
| moral\_norm pro\_env\_framing - moral\_norm self\_enh\_framing | 0.00 | 0.18 | 1038 | 0.00 | 0.999 |

eff\_size(moral\_norm\_means, sigma = sigma\_pool, edf = df\_resid\_pool) %>%  
 knitr::kable(digits = 2)

| contrast | effect.size | SE | df | lower.CL | upper.CL |
| --- | --- | --- | --- | --- | --- |
| (moral\_norm control\_framing - moral\_norm pro\_env\_framing) | -0.14 | 0.18 | 1038 | -0.48 | 0.21 |
| (moral\_norm control\_framing - moral\_norm self\_enh\_framing) | -0.14 | 0.18 | 1038 | -0.49 | 0.22 |
| (moral\_norm pro\_env\_framing - moral\_norm self\_enh\_framing) | 0.00 | 0.16 | 1038 | -0.32 | 0.32 |

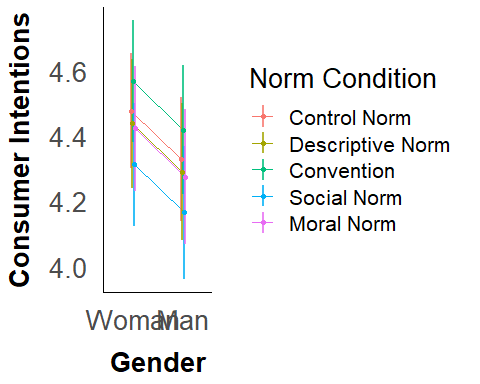
## Gender Interactions

Gender X Norm

emmeans(mod\_mice, ~ norm\_condition\*Gender\*framing\_condition, adjust = "none")

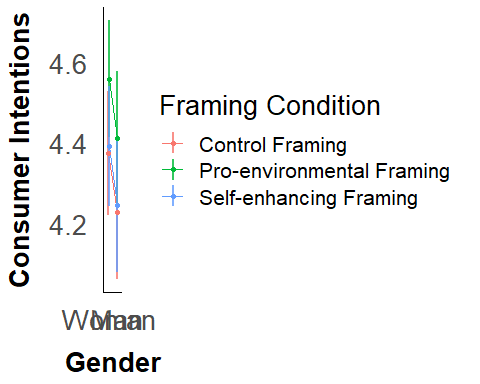
## norm\_condition Gender framing\_condition emmean SE df lower.CL upper.CL  
## control\_norm Woman control\_framing 4.52 0.127 1038 4.27 4.77  
## descriptive\_norm Woman control\_framing 4.37 0.135 1038 4.10 4.63  
## convention\_norm Woman control\_framing 4.57 0.141 1038 4.30 4.85  
## social\_norm Woman control\_framing 4.23 0.121 1038 4.00 4.47  
## moral\_norm Woman control\_framing 4.30 0.147 1038 4.02 4.59  
## control\_norm Man control\_framing 4.38 0.132 1038 4.12 4.63  
## descriptive\_norm Man control\_framing 4.22 0.142 1038 3.94 4.50  
## convention\_norm Man control\_framing 4.43 0.144 1038 4.14 4.71  
## social\_norm Man control\_framing 4.09 0.125 1038 3.84 4.33  
## moral\_norm Man control\_framing 4.16 0.150 1038 3.86 4.45  
## control\_norm Woman pro\_env\_framing 4.68 0.132 1038 4.43 4.94  
## descriptive\_norm Woman pro\_env\_framing 4.52 0.132 1038 4.26 4.78  
## convention\_norm Woman pro\_env\_framing 4.61 0.121 1038 4.37 4.85  
## social\_norm Woman pro\_env\_framing 4.50 0.135 1038 4.23 4.76  
## moral\_norm Woman pro\_env\_framing 4.45 0.122 1038 4.21 4.69  
## control\_norm Man pro\_env\_framing 4.54 0.136 1038 4.27 4.80  
## descriptive\_norm Man pro\_env\_framing 4.37 0.136 1038 4.10 4.63  
## convention\_norm Man pro\_env\_framing 4.46 0.129 1038 4.21 4.72  
## social\_norm Man pro\_env\_framing 4.35 0.144 1038 4.07 4.63  
## moral\_norm Man pro\_env\_framing 4.30 0.132 1038 4.04 4.56  
## control\_norm Woman self\_enh\_framing 4.31 0.129 1038 4.06 4.56  
## descriptive\_norm Woman self\_enh\_framing 4.55 0.125 1038 4.30 4.79  
## convention\_norm Woman self\_enh\_framing 4.54 0.134 1038 4.28 4.81  
## social\_norm Woman self\_enh\_framing 4.32 0.141 1038 4.04 4.60  
## moral\_norm Woman self\_enh\_framing 4.45 0.132 1038 4.19 4.71  
## control\_norm Man self\_enh\_framing 4.16 0.136 1038 3.89 4.43  
## descriptive\_norm Man self\_enh\_framing 4.40 0.130 1038 4.14 4.66  
## convention\_norm Man self\_enh\_framing 4.40 0.137 1038 4.13 4.66  
## social\_norm Man self\_enh\_framing 4.17 0.144 1038 3.89 4.45  
## moral\_norm Man self\_enh\_framing 4.30 0.137 1038 4.03 4.57  
##   
## Confidence level used: 0.95

emmip(mod\_mice, norm\_condition ~ Gender, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.8), xlab = "Gender", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) +theme\_apa() + text\_settings



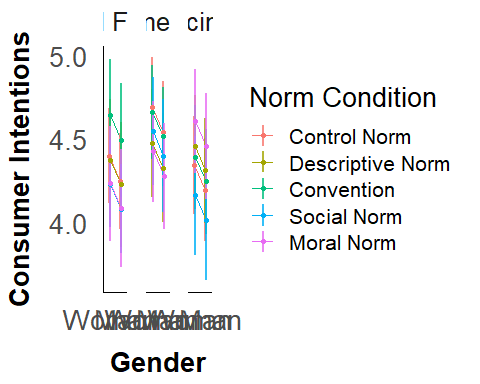
Gender X Framing

emmip(mod\_mice, framing\_condition ~ Gender, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.8), xlab = "Gender", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Framing Condition", breaks=c("control\_framing","pro\_env\_framing","self\_enh\_framing"), labels=c("Control Framing", "Pro-environmental Framing", "Self-enhancing Framing")) +theme\_apa() + text\_settings



Gender X Norm X Framing

emmip(mod\_mice, norm\_condition ~ Gender | framing\_condition, at = at\_list, CIs = TRUE, CIarg = list(lwd = 1, alpha = 0.8), xlab = "Gender", ylab = "Consumer Intentions") + scale\_colour\_discrete(name = "Norm Condition", breaks=c("control\_norm","descriptive\_norm", "convention\_norm", "social\_norm", "moral\_norm"), labels=c("Control Norm", "Descriptive Norm", "Convention", "Social Norm", "Moral Norm")) + facet\_wrap(~framing\_condition, labeller = labeller(framing\_condition = frame\_labs)) +theme\_apa() + text\_settings



# Post-hoc Power Analysis

* Using final sample size (n = 1133) and a small effect size

from Cohen (1988):

f2 = R^2/(1 - R^2) R2 = f^2/(1 + f^2)

Small: f2 = .02, Small: R2 = .02

Model A (full model): PA = 95 Denominator df: n-PA = 1133-95 = 1038

Effects where numerator df: PA-PC = 4

* Main effect of norm
* Values X norm interactions
* Ingroup x norm interactions

# If effect size were small and df\_resid = 1038  
pwr.f2.test(u = 4, # Numerator df (PA-PC)   
 v = 1038, # Denominator df (n - PA)  
 f2 = .02,   
 sig.level = .05,  
 power = NULL) # power = .97

##   
## Multiple regression power calculation   
##   
## u = 4  
## v = 1038  
## f2 = 0.02  
## sig.level = 0.05  
## power = 0.9699383

Effects where numerator df: PA-PC = 2

* Main effect of framing
* Values X framing interactions
* Ingroup x framing interactions

# If effect size were small and df\_resid = 1038  
pwr.f2.test(u = 2, # Numerator df (PA-PC)   
 v = 1038, # Denominator df (n - PA)  
 f2 = .02,   
 sig.level = .05,  
 power = NULL) # power = .99

##   
## Multiple regression power calculation   
##   
## u = 2  
## v = 1038  
## f2 = 0.02  
## sig.level = 0.05  
## power = 0.9880386

Effects where numerator df: PA-PC = 8

* Norm x Framing interaction
* Values X framing x norm interactions
* Ingroup x framing x norm interactions

# If effect size were small and df\_resid = 1038  
pwr.f2.test(u = 8, # Numerator df (PA-PC)   
 v = 1038, # Denominator df (n - PA)  
 f2 = .02,   
 sig.level = .05,  
 power = NULL) # power = .93

##   
## Multiple regression power calculation   
##   
## u = 8  
## v = 1038  
## f2 = 0.02  
## sig.level = 0.05  
## power = 0.9270063

Effects where numerator df: PA-PC = 1

* Biospheric values
* Altruistic values
* Egoistic values
* Hedonic values
* Ingroup identification
* Self-deceptive enhancement
* Impression management
* Clothing interest
* Age
* Gender

# If effect size were small and df\_resid = 1038  
pwr.f2.test(u = 1, # Numerator df (PA-PC)   
 v = 1038, # Denominator df (n - PA)  
 f2 = .02,   
 sig.level = .05,  
 power = NULL) # power = .995

##   
## Multiple regression power calculation   
##   
## u = 1  
## v = 1038  
## f2 = 0.02  
## sig.level = 0.05  
## power = 0.9952913

Comparing imputation models (ANOVA output):

Anova(mod\_mice\_imp1, type = 3) %>%  
 knitr::kable(digits = 8)

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18680.02566323 | 1 | 16399.86750382 | 0.00000000 |
| framing\_condition | 4.40450617 | 2 | 1.93343732 | 0.14517071 |
| norm\_condition | 7.05610891 | 4 | 1.54870306 | 0.18593824 |
| biospheric\_center | 67.67657158 | 1 | 59.41570033 | 0.00000000 |
| altruistic\_center | 1.82741319 | 1 | 1.60435187 | 0.20557172 |
| egoistic\_center | 53.20018200 | 1 | 46.70635639 | 0.00000000 |
| hedonic\_center | 2.80793254 | 1 | 2.46518514 | 0.11669875 |
| ingroup\_center | 0.69128023 | 1 | 0.60689982 | 0.43613504 |
| self\_dec\_center | 8.47075388 | 1 | 7.43678000 | 0.00649814 |
| impress\_manag\_center | 0.09469756 | 1 | 0.08313840 | 0.77314612 |
| clothing\_center | 0.01523182 | 1 | 0.01337256 | 0.90796039 |
| Gender | 4.10228394 | 1 | 3.60154286 | 0.05800322 |
| Age\_center | 6.49242033 | 1 | 5.69992971 | 0.01714372 |
| framing\_condition:norm\_condition | 5.77347445 | 8 | 0.63359265 | 0.74996111 |
| framing\_condition:biospheric\_center | 0.97578842 | 2 | 0.42833990 | 0.65170502 |
| norm\_condition:biospheric\_center | 11.79573910 | 4 | 2.58897608 | 0.03545043 |
| framing\_condition:altruistic\_center | 1.30083133 | 2 | 0.57102334 | 0.56512437 |
| norm\_condition:altruistic\_center | 8.64478806 | 4 | 1.89739272 | 0.10869474 |
| framing\_condition:egoistic\_center | 0.28158055 | 2 | 0.12360485 | 0.88374198 |
| norm\_condition:egoistic\_center | 2.48834572 | 4 | 0.54615209 | 0.70188378 |
| framing\_condition:hedonic\_center | 1.91039338 | 2 | 0.83860159 | 0.43260734 |
| norm\_condition:hedonic\_center | 7.54859035 | 4 | 1.65679485 | 0.15784031 |
| framing\_condition:ingroup\_center | 0.79997949 | 2 | 0.35116541 | 0.70395091 |
| norm\_condition:ingroup\_center | 1.08934111 | 4 | 0.23909295 | 0.91626654 |
| framing\_condition:norm\_condition:biospheric\_center | 17.29358057 | 8 | 1.89783218 | 0.05692565 |
| framing\_condition:norm\_condition:altruistic\_center | 11.83432371 | 8 | 1.29872239 | 0.24014383 |
| framing\_condition:norm\_condition:egoistic\_center | 11.78307846 | 8 | 1.29309863 | 0.24306480 |
| framing\_condition:norm\_condition:hedonic\_center | 6.18874494 | 8 | 0.67916527 | 0.71025303 |
| framing\_condition:norm\_condition:ingroup\_center | 13.74665058 | 8 | 1.50858497 | 0.14970763 |
| Residuals | 1182.31849336 | 1038 | NA | NA |

Anova(mod\_mice\_imp2, type = 3) %>%  
 knitr::kable(digits = 8)

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18850.51630908 | 1 | 16495.62301347 | 0.00000000 |
| framing\_condition | 4.19475967 | 2 | 1.83536549 | 0.16007259 |
| norm\_condition | 6.50678666 | 4 | 1.42348223 | 0.22403665 |
| biospheric\_center | 69.94251855 | 1 | 61.20497708 | 0.00000000 |
| altruistic\_center | 1.49551368 | 1 | 1.30868723 | 0.25289622 |
| egoistic\_center | 56.07301551 | 1 | 49.06811622 | 0.00000000 |
| hedonic\_center | 3.00005217 | 1 | 2.62527183 | 0.10547822 |
| ingroup\_center | 0.99565707 | 1 | 0.87127501 | 0.35081965 |
| self\_dec\_center | 6.96016121 | 1 | 6.09066582 | 0.01375014 |
| impress\_manag\_center | 0.24679649 | 1 | 0.21596554 | 0.64222878 |
| clothing\_center | 0.00173571 | 1 | 0.00151888 | 0.96891955 |
| Gender | 5.19634576 | 1 | 4.54719432 | 0.03320692 |
| Age\_center | 4.09213961 | 1 | 3.58093068 | 0.05872446 |
| framing\_condition:norm\_condition | 5.61103750 | 8 | 0.61376011 | 0.76687070 |
| framing\_condition:biospheric\_center | 0.55206516 | 2 | 0.24154932 | 0.78545420 |
| norm\_condition:biospheric\_center | 11.75960816 | 4 | 2.57263594 | 0.03642483 |
| framing\_condition:altruistic\_center | 1.09858440 | 2 | 0.48067209 | 0.61850523 |
| norm\_condition:altruistic\_center | 9.47068585 | 4 | 2.07189104 | 0.08241893 |
| framing\_condition:egoistic\_center | 0.61358809 | 2 | 0.26846792 | 0.76460302 |
| norm\_condition:egoistic\_center | 2.00476671 | 4 | 0.43858051 | 0.78079020 |
| framing\_condition:hedonic\_center | 1.85062803 | 2 | 0.80971953 | 0.44526372 |
| norm\_condition:hedonic\_center | 8.14042709 | 4 | 1.78087186 | 0.13039215 |
| framing\_condition:ingroup\_center | 0.99679770 | 2 | 0.43613657 | 0.64664785 |
| norm\_condition:ingroup\_center | 1.12039522 | 4 | 0.24510757 | 0.91267654 |
| framing\_condition:norm\_condition:biospheric\_center | 17.68746548 | 8 | 1.93473323 | 0.05168253 |
| framing\_condition:norm\_condition:altruistic\_center | 11.78363088 | 8 | 1.28894568 | 0.24523954 |
| framing\_condition:norm\_condition:egoistic\_center | 11.19591223 | 8 | 1.22465841 | 0.28084758 |
| framing\_condition:norm\_condition:hedonic\_center | 6.60136212 | 8 | 0.72208620 | 0.67216111 |
| framing\_condition:norm\_condition:ingroup\_center | 12.31746575 | 8 | 1.34733890 | 0.21602692 |
| Residuals | 1186.18350534 | 1038 | NA | NA |

Anova(mod\_mice\_imp3, type = 3) %>%  
 knitr::kable(digits = 8)

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18798.88549078 | 1 | 16489.85352182 | 0.00000000 |
| framing\_condition | 4.55134185 | 2 | 1.99615452 | 0.13637790 |
| norm\_condition | 6.56972501 | 4 | 1.44069449 | 0.21842031 |
| biospheric\_center | 70.57594541 | 1 | 61.90723394 | 0.00000000 |
| altruistic\_center | 1.42081961 | 1 | 1.24630299 | 0.26451812 |
| egoistic\_center | 55.90728709 | 1 | 49.04029951 | 0.00000000 |
| hedonic\_center | 3.38757763 | 1 | 2.97148780 | 0.08504164 |
| ingroup\_center | 0.72723256 | 1 | 0.63790794 | 0.42465208 |
| self\_dec\_center | 6.87833026 | 1 | 6.03347781 | 0.01419994 |
| impress\_manag\_center | 0.07248616 | 1 | 0.06358282 | 0.80097014 |
| clothing\_center | 0.00734467 | 1 | 0.00644254 | 0.93604164 |
| Gender | 4.39724303 | 1 | 3.85713789 | 0.04980132 |
| Age\_center | 5.79362380 | 1 | 5.08200382 | 0.02438326 |
| framing\_condition:norm\_condition | 5.47339330 | 8 | 0.60013833 | 0.77831889 |
| framing\_condition:biospheric\_center | 0.52424498 | 2 | 0.22992647 | 0.79463248 |
| norm\_condition:biospheric\_center | 12.26622254 | 4 | 2.68989634 | 0.02996712 |
| framing\_condition:altruistic\_center | 1.07268003 | 2 | 0.47046237 | 0.62484649 |
| norm\_condition:altruistic\_center | 9.26137415 | 4 | 2.03095422 | 0.08798374 |
| framing\_condition:egoistic\_center | 0.57398800 | 2 | 0.25174306 | 0.77749192 |
| norm\_condition:egoistic\_center | 1.70509539 | 4 | 0.37391543 | 0.82734550 |
| framing\_condition:hedonic\_center | 2.23235695 | 2 | 0.97908036 | 0.37600305 |
| norm\_condition:hedonic\_center | 8.96671037 | 4 | 1.96633652 | 0.09749239 |
| framing\_condition:ingroup\_center | 0.82437416 | 2 | 0.36155891 | 0.69667725 |
| norm\_condition:ingroup\_center | 1.06256618 | 4 | 0.23301329 | 0.91984789 |
| framing\_condition:norm\_condition:biospheric\_center | 17.55552030 | 8 | 1.92490107 | 0.05303432 |
| framing\_condition:norm\_condition:altruistic\_center | 11.99688579 | 8 | 1.31541634 | 0.23163451 |
| framing\_condition:norm\_condition:egoistic\_center | 11.77896583 | 8 | 1.29152218 | 0.24388855 |
| framing\_condition:norm\_condition:hedonic\_center | 6.28572512 | 8 | 0.68920766 | 0.70138392 |
| framing\_condition:norm\_condition:ingroup\_center | 13.74456905 | 8 | 1.50704367 | 0.15024928 |
| Residuals | 1183.34848236 | 1038 | NA | NA |

Anova(mod\_mice\_imp4, type = 3) %>%  
 knitr::kable(digits = 8)

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18795.92628932 | 1 | 16513.14803350 | 0.00000000 |
| framing\_condition | 4.76135928 | 2 | 2.09154445 | 0.12401642 |
| norm\_condition | 6.12495117 | 4 | 1.34526790 | 0.25118108 |
| biospheric\_center | 69.53221625 | 1 | 61.08748047 | 0.00000000 |
| altruistic\_center | 2.57685763 | 1 | 2.26389649 | 0.13272471 |
| egoistic\_center | 55.26545080 | 1 | 48.55342356 | 0.00000000 |
| hedonic\_center | 4.04063416 | 1 | 3.54989635 | 0.05982845 |
| ingroup\_center | 0.53402822 | 1 | 0.46917012 | 0.49352212 |
| self\_dec\_center | 7.00847093 | 1 | 6.15728729 | 0.01324460 |
| impress\_manag\_center | 0.14313374 | 1 | 0.12575005 | 0.72295192 |
| clothing\_center | 0.00473031 | 1 | 0.00415581 | 0.94861190 |
| Gender | 3.13163166 | 1 | 2.75129283 | 0.09747793 |
| Age\_center | 10.21736710 | 1 | 8.97646079 | 0.00279977 |
| framing\_condition:norm\_condition | 6.19045570 | 8 | 0.67982757 | 0.70966916 |
| framing\_condition:biospheric\_center | 1.13750595 | 2 | 0.49967753 | 0.60687214 |
| norm\_condition:biospheric\_center | 11.79916435 | 4 | 2.59153692 | 0.03530002 |
| framing\_condition:altruistic\_center | 1.86886078 | 2 | 0.82094317 | 0.44030193 |
| norm\_condition:altruistic\_center | 10.04295375 | 4 | 2.20580752 | 0.06644917 |
| framing\_condition:egoistic\_center | 0.34929751 | 2 | 0.15343754 | 0.85777379 |
| norm\_condition:egoistic\_center | 2.50107512 | 4 | 0.54932945 | 0.69955866 |
| framing\_condition:hedonic\_center | 2.60102081 | 2 | 1.14256251 | 0.31940139 |
| norm\_condition:hedonic\_center | 7.90758439 | 4 | 1.73680070 | 0.13959489 |
| framing\_condition:ingroup\_center | 0.80617121 | 2 | 0.35413058 | 0.70186808 |
| norm\_condition:ingroup\_center | 0.93389360 | 4 | 0.20511789 | 0.93561931 |
| framing\_condition:norm\_condition:biospheric\_center | 16.73974187 | 8 | 1.83833608 | 0.06641407 |
| framing\_condition:norm\_condition:altruistic\_center | 12.25290603 | 8 | 1.34559776 | 0.21685597 |
| framing\_condition:norm\_condition:egoistic\_center | 10.50635901 | 8 | 1.15379430 | 0.32439750 |
| framing\_condition:norm\_condition:hedonic\_center | 5.75043015 | 8 | 0.63150455 | 0.75175379 |
| framing\_condition:norm\_condition:ingroup\_center | 12.78110578 | 8 | 1.40360395 | 0.19058156 |
| Residuals | 1181.49316222 | 1038 | NA | NA |

Anova(mod\_mice\_imp5, type = 3) %>%  
 knitr::kable(digits = 8)

|  | Sum Sq | Df | F value | Pr(>F) |
| --- | --- | --- | --- | --- |
| (Intercept) | 18899.61018975 | 1 | 16469.29251642 | 0.00000000 |
| framing\_condition | 4.31482684 | 2 | 1.87998971 | 0.15311088 |
| norm\_condition | 6.33561016 | 4 | 1.38022710 | 0.23871366 |
| biospheric\_center | 70.75485390 | 1 | 61.65642435 | 0.00000000 |
| altruistic\_center | 1.62765529 | 1 | 1.41835365 | 0.23394684 |
| egoistic\_center | 55.36359846 | 1 | 48.24434412 | 0.00000000 |
| hedonic\_center | 3.69534818 | 1 | 3.22016007 | 0.07302741 |
| ingroup\_center | 1.07568521 | 1 | 0.93736189 | 0.33318275 |
| self\_dec\_center | 8.17906538 | 1 | 7.12731209 | 0.00771039 |
| impress\_manag\_center | 0.19654798 | 1 | 0.17127370 | 0.67906779 |
| clothing\_center | 0.01048101 | 1 | 0.00913325 | 0.92388211 |
| Gender | 4.94552994 | 1 | 4.30957985 | 0.03814403 |
| Age\_center | 3.20834807 | 1 | 2.79578374 | 0.09481392 |
| framing\_condition:norm\_condition | 5.44058702 | 8 | 0.59262214 | 0.78457130 |
| framing\_condition:biospheric\_center | 0.52053313 | 2 | 0.22679866 | 0.79712074 |
| norm\_condition:biospheric\_center | 11.13289060 | 4 | 2.42532558 | 0.04645470 |
| framing\_condition:altruistic\_center | 1.12370465 | 2 | 0.48960323 | 0.61301097 |
| norm\_condition:altruistic\_center | 8.32499360 | 4 | 1.81361882 | 0.12392032 |
| framing\_condition:egoistic\_center | 0.55925065 | 2 | 0.24366806 | 0.78379257 |
| norm\_condition:egoistic\_center | 2.09679431 | 4 | 0.45679142 | 0.76748093 |
| framing\_condition:hedonic\_center | 2.28375461 | 2 | 0.99504229 | 0.37006018 |
| norm\_condition:hedonic\_center | 8.39001498 | 4 | 1.82778387 | 0.12121408 |
| framing\_condition:ingroup\_center | 0.94846197 | 2 | 0.41324920 | 0.66160620 |
| norm\_condition:ingroup\_center | 1.19910691 | 4 | 0.26122817 | 0.90283662 |
| framing\_condition:norm\_condition:biospheric\_center | 17.32364348 | 8 | 1.88699760 | 0.05855531 |
| framing\_condition:norm\_condition:altruistic\_center | 10.76447437 | 8 | 1.17253263 | 0.31244035 |
| framing\_condition:norm\_condition:egoistic\_center | 11.38632547 | 8 | 1.24026847 | 0.27186296 |
| framing\_condition:norm\_condition:hedonic\_center | 5.15460822 | 8 | 0.56147157 | 0.80993106 |
| framing\_condition:norm\_condition:ingroup\_center | 12.63143606 | 8 | 1.37589356 | 0.20279011 |
| Residuals | 1191.17414166 | 1038 | NA | NA |

Checking p-values from Pooled ANOVA table

# p-value for biospheric values  
pf(60.76, df1 = 1, df2 = 182541.21, lower.tail = FALSE)

## [1] 0.000000000000006481222

# p-value for framing condition  
pf(1.94, df1 = 2, df2 = 277911.15, lower.tail = FALSE)

## [1] 0.1437059

Q: Which of the pooled ANOVA effects would be significant if the non-adjusted denominator df, 1038, were used?

df1 = 1:

* F-critical value when df1 = 1 & df2 = 1038: Fcv = 3.8504
* F-critical value when df1 = 1 & df2 = 9999: Fcv = 3.8424

df1 = 2:

* F-critical value when df1 = 2 & df2 = 1038: Fcv = 3.0044
* F-critical value when df1 = 2 & df2 = 9999: Fcv = 2.9966

df1 = 4:

* F-critical value when df1 = 4 & df2 = 1038: Fcv = 2.3805
* F-critical value when df1 = 4 & df2 = 9999: Fcv = 2.3728

df1 = 8:

* F-critical value when df1 = 8 & df2 = 1038: Fcv = 1.9473
* F-critical value when df1 = 8 & df2 = 9999: Fcv = 1.9393