SocKul

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Set working directory and load packages

# set working directory  
setwd("C:/Users/askes/OneDrive/Skrivebord/SocKul - Exam/data/")  
  
# packages   
library(pacman)  
pacman::p\_load(tidyverse, patchwork)  
  
# import data  
Sac <- read\_csv("SaccadesDV.csv")

## Parsed with column specification:  
## cols(  
## .default = col\_double(),  
## Blink = col\_logical(),  
## Direction = col\_character(),  
## Eye = col\_character(),  
## CURRENT\_SAC\_MSG\_TEXT\_1 = col\_character(),  
## Message = col\_character(),  
## Event = col\_character(),  
## PreviousRating = col\_logical(),  
## PreviousGroupRating = col\_logical()  
## )

## See spec(...) for full column specifications.

## Warning: 295851 parsing failures.  
## row col expected actual file  
## 247203 PreviousRating 1/0/T/F/TRUE/FALSE 3 'SaccadesDV.csv'  
## 247203 PreviousGroupRating 1/0/T/F/TRUE/FALSE 3 'SaccadesDV.csv'  
## 247204 PreviousRating 1/0/T/F/TRUE/FALSE 3 'SaccadesDV.csv'  
## 247204 PreviousGroupRating 1/0/T/F/TRUE/FALSE 3 'SaccadesDV.csv'  
## 247205 PreviousRating 1/0/T/F/TRUE/FALSE 3 'SaccadesDV.csv'  
## ...... ................... .................. ...... ................  
## See problems(...) for more details.

Fix <- read\_csv("FixationsDV.csv")

## Parsed with column specification:  
## cols(  
## .default = col\_double(),  
## Eye = col\_character(),  
## CURRENT\_FIX\_MSG\_TEXT\_1 = col\_character(),  
## Event = col\_character(),  
## AOI = col\_character(),  
## PreviousRating = col\_logical(),  
## PreviousGroupRating = col\_logical(),  
## Message = col\_character()  
## )  
## See spec(...) for full column specifications.

## Warning: 312764 parsing failures.  
## row col expected actual file  
## 255913 PreviousRating 1/0/T/F/TRUE/FALSE 3 'FixationsDV.csv'  
## 255913 PreviousGroupRating 1/0/T/F/TRUE/FALSE 3 'FixationsDV.csv'  
## 255914 PreviousRating 1/0/T/F/TRUE/FALSE 3 'FixationsDV.csv'  
## 255914 PreviousGroupRating 1/0/T/F/TRUE/FALSE 3 'FixationsDV.csv'  
## 255915 PreviousRating 1/0/T/F/TRUE/FALSE 3 'FixationsDV.csv'  
## ...... ................... .................. ...... .................  
## See problems(...) for more details.

Calibration <- read.csv("Calibration.csv", sep = " ") # ?  
AOI <- read\_csv("AoI\_Coordinates.csv")

## Parsed with column specification:  
## cols(  
## Trial = col\_character(),  
## Left = col\_double(),  
## Top = col\_double(),  
## Right = col\_double(),  
## Bottom = col\_double(),  
## Event = col\_character()  
## )

# RAW + create placeholder for raw data  
#Raw\_placeholder <- read\_csv("Samples.csv")  
#Raw <- Raw\_placeholder

# Explore

# colnames in raw data  
#colnames(Raw)  
unique(Fix$AOI)

## [1] "5" "Face" NA "FixationCross"  
## [5] "6" "4" "7" "8"   
## [9] "2" "1" "3" "Scale"   
## [13] "Text"

# explore some columns  
summary(Fix$PreviousRating)

## Mode TRUE NA's   
## logical 5424 415077

summary(Fix$PreviousGroupRating)

## Mode TRUE NA's   
## logical 10990 409511

summary(Sac$CurrentRating)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 1.00 4.00 5.00 4.89 6.00 8.00 17

unique(Sac$CurrentRating)

## [1] 1 5 6 4 2 3 7 8 NA

# There is a little difference between the sum of durations and the total reaction time - could be due to saccades.  
Fix %>% filter(ID == 101 & Session == 1 & Trial == 1) %>%   
 summarise(  
 sum\_RT = sum(Duration),  
 RT = max(RT)  
)

## # A tibble: 1 x 2  
## sum\_RT RT  
## <dbl> <dbl>  
## 1 17894 18573

# Explore the data  
  
Fix %>% filter(ID == 101) %>%   
 group\_by(Session, Trial) %>%   
 summarise(  
 fixations = max(FixationN),  
 max\_pupil = max(PupilSize),  
 min\_pupil = min(PupilSize),  
 mean\_pupil = mean(PupilSize),  
 mean\_dur\_ms = mean(Duration),  
 max\_dur\_ms = max(Duration),  
 group = Group[1]  
   
)

## # A tibble: 306 x 9  
## # Groups: Session [2]  
## Session Trial fixations max\_pupil min\_pupil mean\_pupil mean\_dur\_ms  
## <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 1 1 59 47100 30500 37764. 303.  
## 2 1 2 29 45600 34200 39366. 389.  
## 3 1 3 20 38700 33800 36850 438.  
## 4 1 4 13 42900 36600 39646. 571.  
## 5 1 5 12 44000 38200 40758. 484.  
## 6 1 6 28 39400 28700 36479. 321.  
## 7 1 7 23 43600 34100 39474. 323.  
## 8 1 8 14 39000 31900 35329. 597.  
## 9 1 9 25 42500 32700 37700 423.  
## 10 1 10 20 47600 35600 42065 471.  
## # ... with 296 more rows, and 2 more variables: max\_dur\_ms <dbl>,  
## # group <dbl>

# mean number of fixations for each group  
Fix %>%   
 group\_by(Group,ID) %>%   
 summarise(  
 max\_fix\_ID = max(FixationN)) %>%   
   
 group\_by(Group) %>%   
 summarise(  
 Max\_mean\_nr\_fix = mean(max\_fix\_ID))

## # A tibble: 2 x 2  
## Group Max\_mean\_nr\_fix  
## <dbl> <dbl>  
## 1 0 74.4  
## 2 1 76.9

# AOI - face pupil size  
Fix$Face <- ifelse(Fix$AOI == "Face", 1, 0)  
  
Fix %>%   
   
 group\_by(Group, Session, Trial, Face) %>%   
 summarise(  
 mean\_pupil = mean(PupilSize)) %>%   
   
 group\_by(Group, Face) %>%   
 summarise(  
 mean = mean(mean\_pupil)  
 )

## # A tibble: 6 x 3  
## # Groups: Group [2]  
## Group Face mean  
## <dbl> <dbl> <dbl>  
## 1 0 0 36433.  
## 2 0 1 36802.  
## 3 0 NA 38559.  
## 4 1 0 36207.  
## 5 1 1 34565.  
## 6 1 NA 35735.

### TRY EXTRACT SCALE DURATIONS  
  
  
  
# Select one trial   
ID\_105 <- Fix %>% dplyr::filter(ID == 105 & Session == 1 & Picture == 0)  
  
  
# Total duration sum of fixations  
dur\_sum <- sum(ID\_105$Duration)  
  
# Total duration sum of fixations on the whole Scale  
scale\_sum <- ID\_105 %>% dplyr::filter(AOI %in% c(1,2,3,4,5,6,7,8))  
scale\_sum <- sum(scale\_sum$Duration)  
  
# Total duration on target rate  
ID\_105 <- ID\_105 %>% dplyr::filter(AOI %in% c(1,2,3,4,5,6,7,8))  
ID\_105$CurrentGroupRating <- as.numeric(ID\_105$CurrentGroupRating)  
ID\_105$AOI <- as.numeric(ID\_105$AOI)  
ID\_105 <- ID\_105 %>% dplyr::filter(AOI == CurrentGroupRating)  
  
target\_sum <- sum(ID\_105$Duration)  
  
  
ID <- ID\_105$ID[1]  
Trial <- ID\_105$Trial[1]  
Picture <- ID\_105$Picture[1]  
Diagnosis <- ID\_105$Group[1]  
Session <- ID\_105$Session[1]  
RT <- ID\_105$RT[1]  
   
   
d <- tibble(dur\_sum, scale\_sum, target\_sum, ID, Trial, Picture, Diagnosis, Session, RT)  
d

## # A tibble: 1 x 9  
## dur\_sum scale\_sum target\_sum ID Trial Picture Diagnosis Session RT  
## <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 12578 4650 738 105 79 0 1 1 11934

## Wrap up in a big loop  
  
# start with a subset  
session\_1 <- Fix %>% filter(Session == 1 & ID %in% c(101,103,105))  
  
  
# Make empty dataframe  
df <- tibble(dur\_sum = numeric(),   
 scale\_sum = numeric(),   
 target\_sum = numeric(),   
 ID = numeric(),   
 Trial = numeric(),  
 Picture = numeric(),   
 Diagnosis = numeric(),   
 Session = numeric(),  
 RT = numeric())  
  
# create list of ID's  
id\_list <- unique(session\_1$ID)  
  
#   
# for (crt\_id in 1:length(id\_list)){  
#   
# # take only one participant at a time  
# ID <- dplyr::filter(session\_1, ID == id\_list[crt\_id])  
#   
# for (crt\_trial in 1:length(unique(ID$Trial))){  
#   
# # take one trial at a time from 1 to 153  
# trial <- dplyr::filter(ID, Trial == crt\_trial)  
#   
# # Total duration sum of fixations  
# dur\_sum <- sum(trial$Duration)  
#   
# # Total duration sum of fixations on the whole Scale  
# scale\_sum <- trial %>% dplyr::filter(AOI %in% c(1,2,3,4,5,6,7,8))  
# scale\_sum <- sum(scale\_sum$Duration)  
#   
# # Total duration on target rate  
# trial <- trial %>% dplyr::filter(AOI %in% c(1,2,3,4,5,6,7,8))  
#   
# trial$CurrentGroupRating <- as.numeric(trial$CurrentGroupRating)  
# trial$AOI <- as.numeric(trial$AOI)  
#   
# target\_sum <- trial %>% dplyr::filter(AOI == CurrentGroupRating)  
# target\_sum <- sum(target\_sum$Duration)  
#   
#   
# # Extract info to add to row  
# ID <- trial$ID[1]  
# Trial <- trial$Trial[1]  
# Picture <- trial$Picture[1]  
# Diagnosis <- trial$Group[1]  
# Session <- trial$Session[1]  
# RT <- trial$RT[1]  
#   
# # Create row  
# d <- tibble(dur\_sum, scale\_sum, target\_sum, ID, Trial, Picture, Diagnosis, Session, RT)   
#   
# # Combine with premade empty dataframe  
# if (nrow(df) == 0) {  
# df <- d}  
# else {  
# df <- rbind(df, d)  
#   
# }  
# }  
# }  
#   
#   
#   
#   
#   
#   
#   
# for (crt\_ses in 1:length(unique(Fix$Session))){  
#   
# # make subset with only one session  
# round <- dplyr::filter(Fix, Session == crt\_ses)  
#   
# if (round$Session[1] == 1){  
# # Run premade loop for session 1  
#   
# } else {  
# # make loop that can 'find' the groupratings for session 2.  
#   
# }  
#   
# }

# to do

i need to figure out problem with ‘filter\_’