

# Attention pilots

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## Attention pilot 1: study description

In this pilot we tested people on the attention pilot, where no feedback was provided and no prediction was collected. We have m\_hist, anxiety, mood and certainty ratings for this pilot. This is the experiment on Gorilla: <https://app.gorilla.sc/admin/project/115369> This is the task version used: <https://app.gorilla.sc/admin/task/712861/editor?version=3>

The Externally focused attention condition was presented first, followed by the internally focused attention. Each condition had 24 trials. I will keep the mood and anxiety ratings before they start the task to look at baseline anxiety and mood in the following analysis.

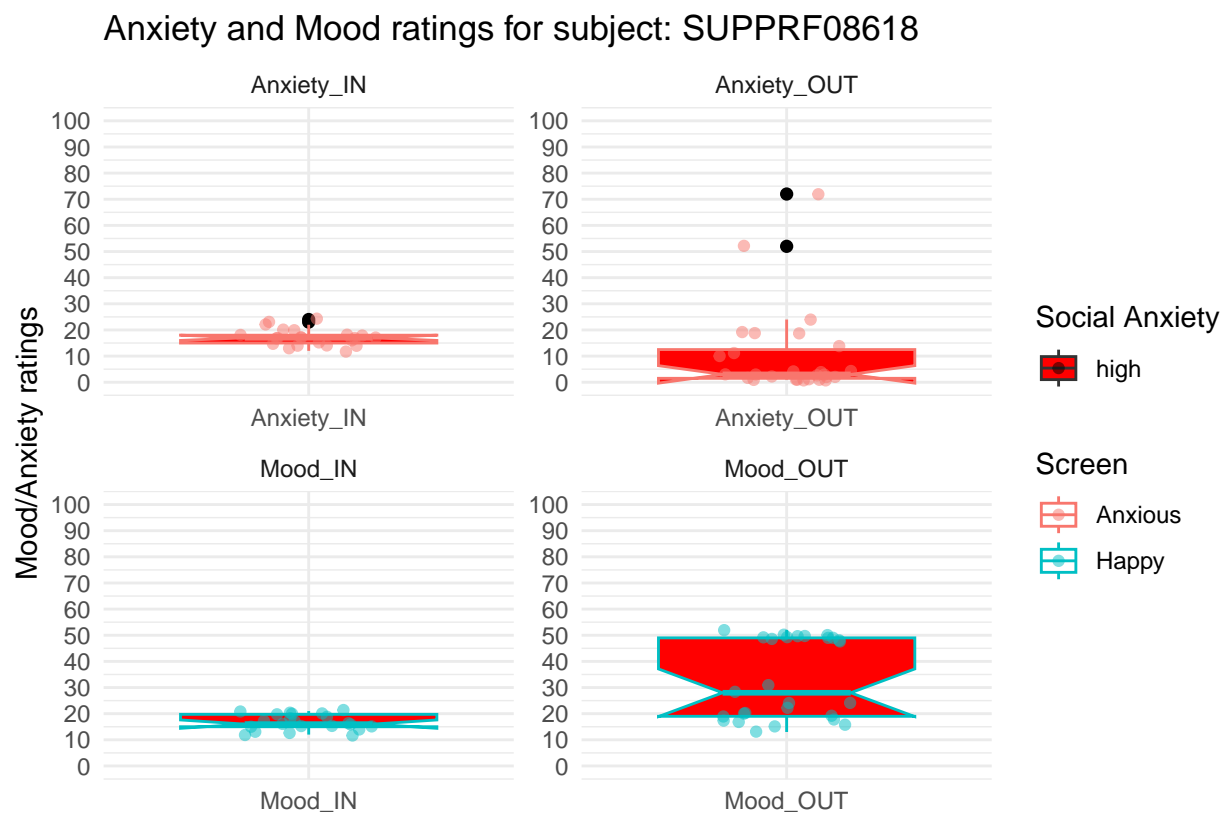
## Anxiety and Mood ratings within subjects

There were 3 people that had given the same rating across all trials. Some people show the pattern we expect (lower anxiety, higher mood from IN to OUT conditions) but not everyone.

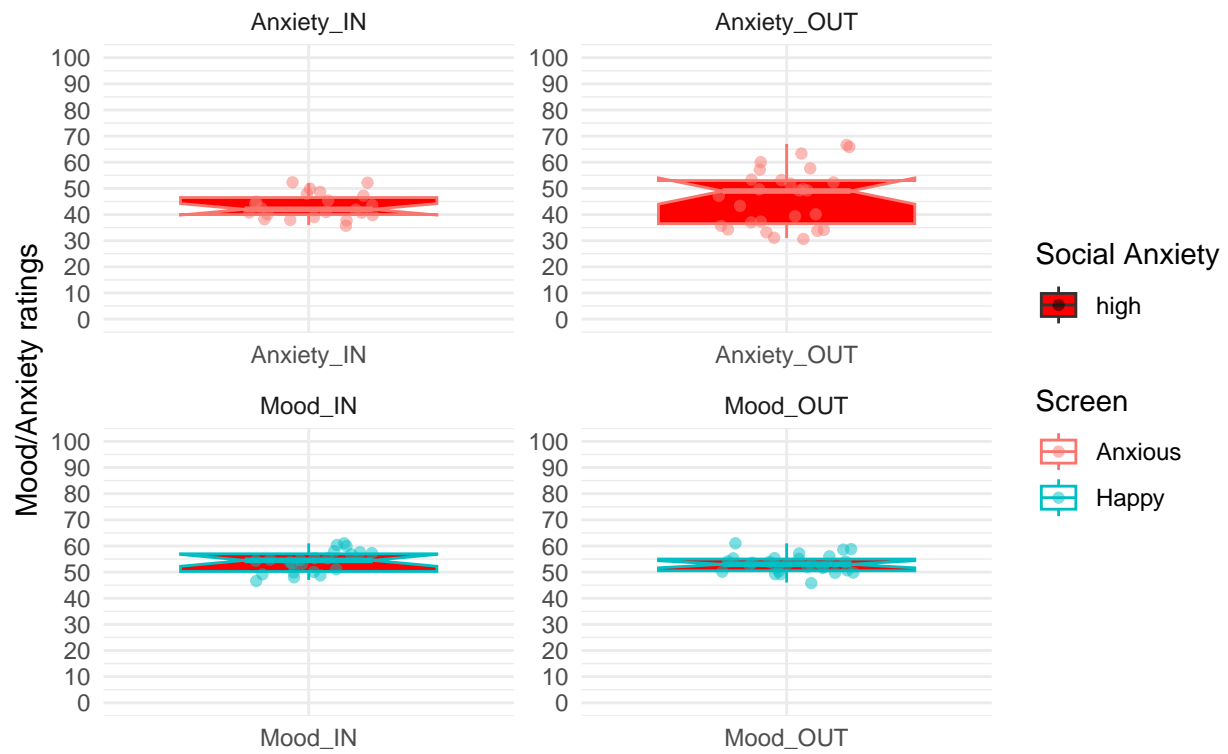
**QUESTION:** How can we best plot the group plot? We cannot plot the individual points anymore, as they would become hard to read; we could average within subjects but again not sure if this is the best approach? I also wonder maybe the fact that there was no feedback (per trial, only at the end) was not stressful enough. It would be interesting to pilot it with the feedback and prediction.

**Let's also think how to have the feedback across both conditions: we do want to keep feedback constant to be comparable between conditions, right? If so, we would need to have 2 x 48 trials?**

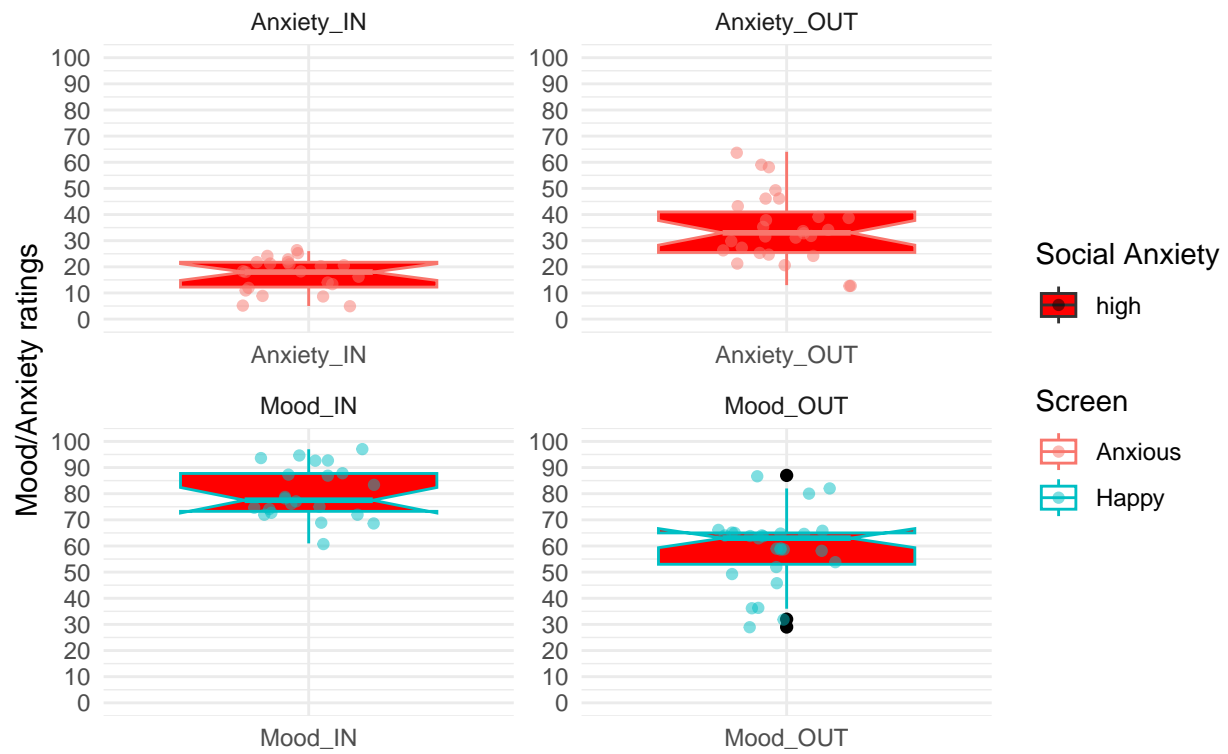
```
## [1] "21 subjects out of 29 had high social anxiety"
```



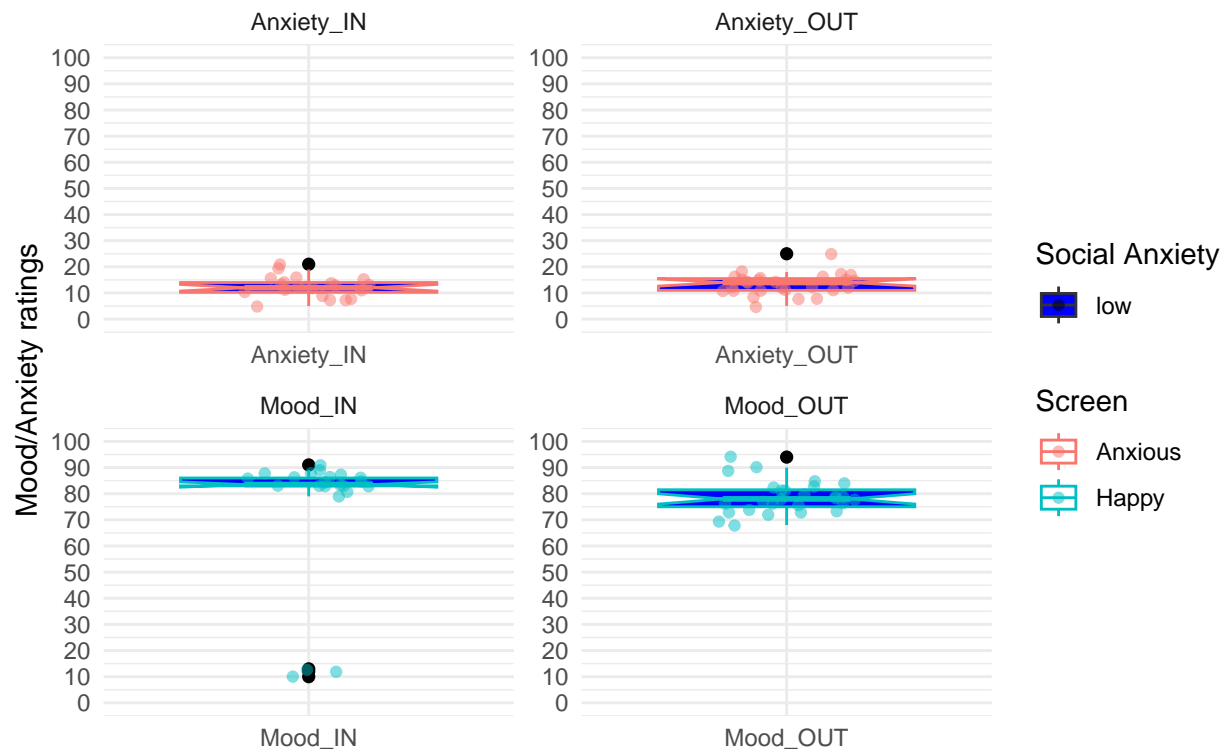
## Anxiety and Mood ratings for subject: SUPPRF47263



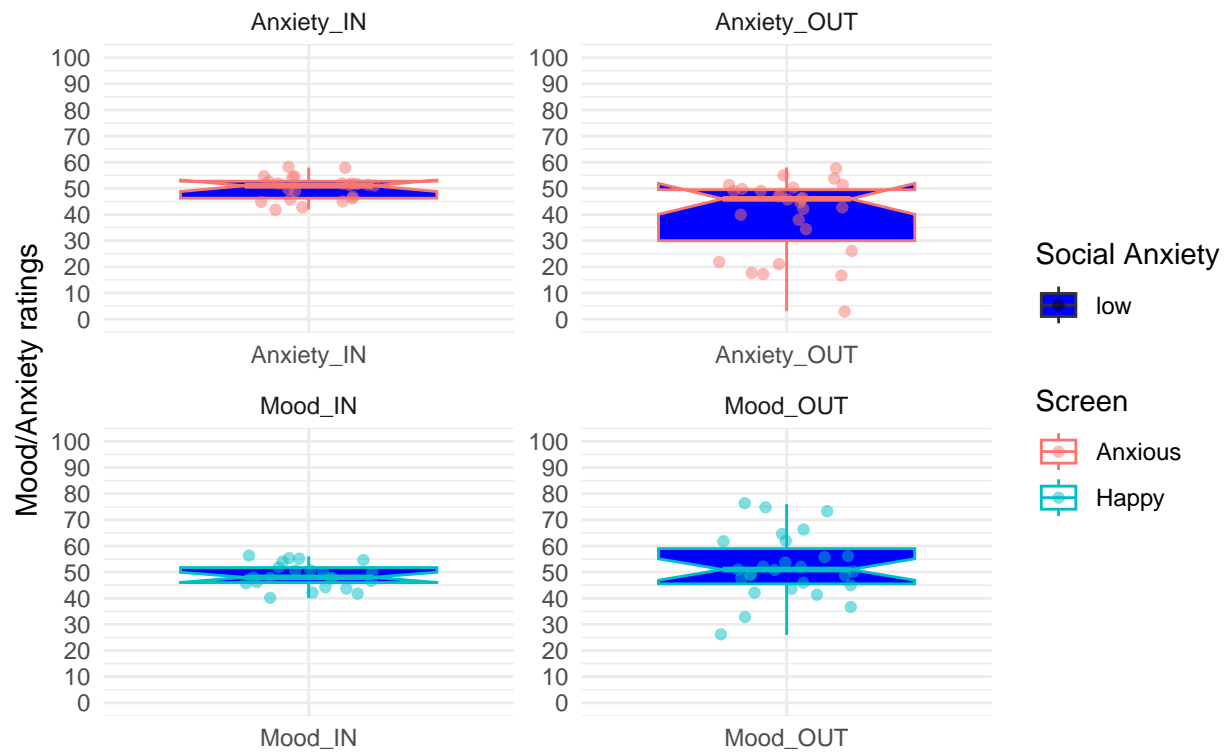
## Anxiety and Mood ratings for subject: SUPPRF80291



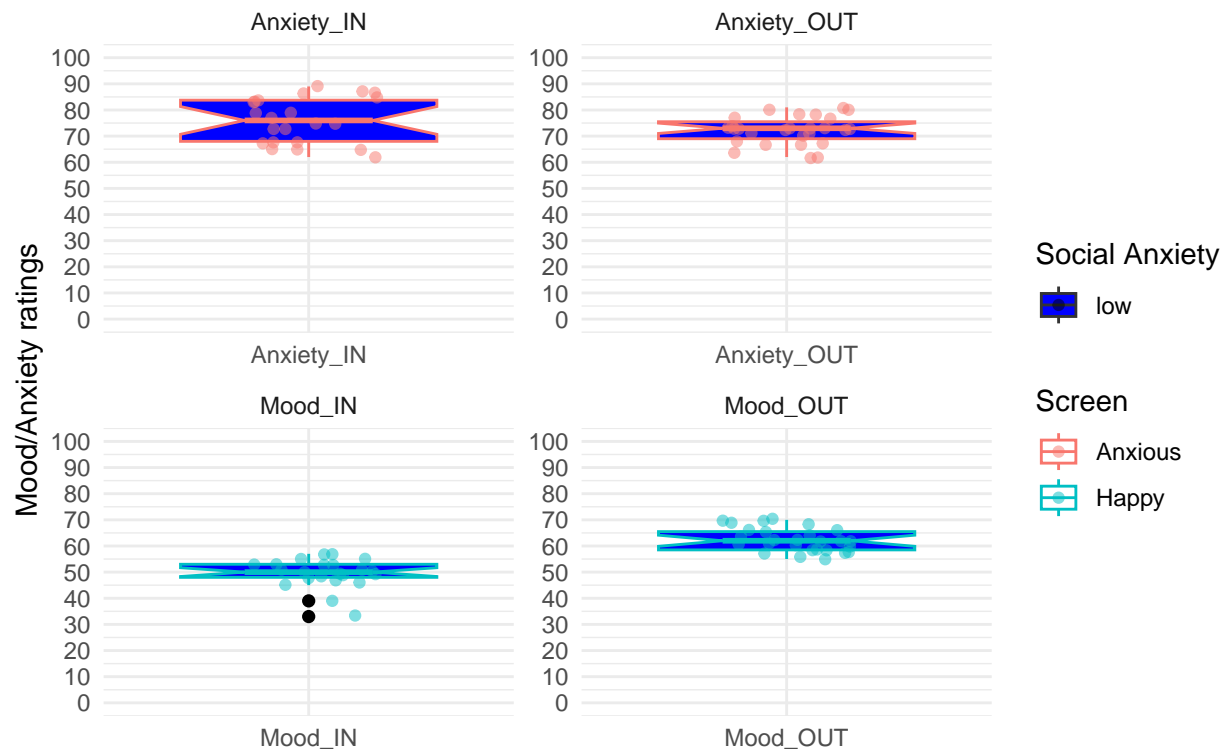
## Anxiety and Mood ratings for subject: SUPPRF42417



# Anxiety and Mood ratings for subject: SUPPRF79567

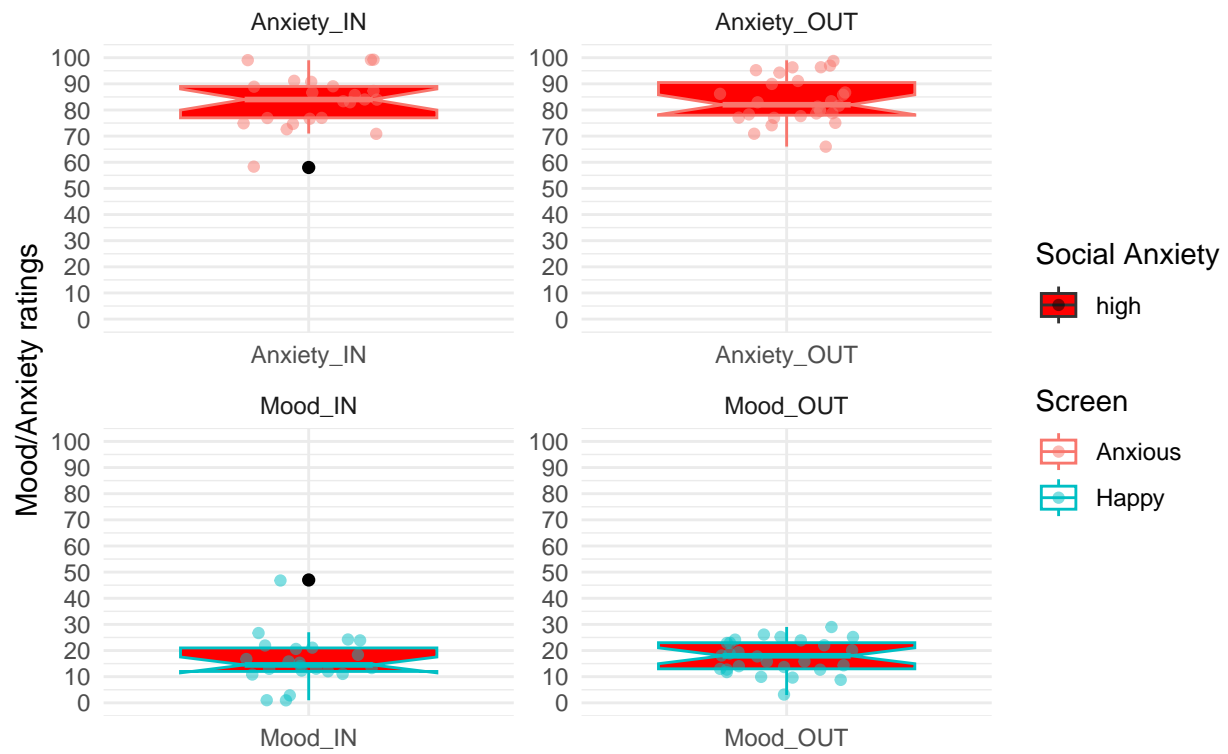


## Anxiety and Mood ratings for subject: SUPPRF79528

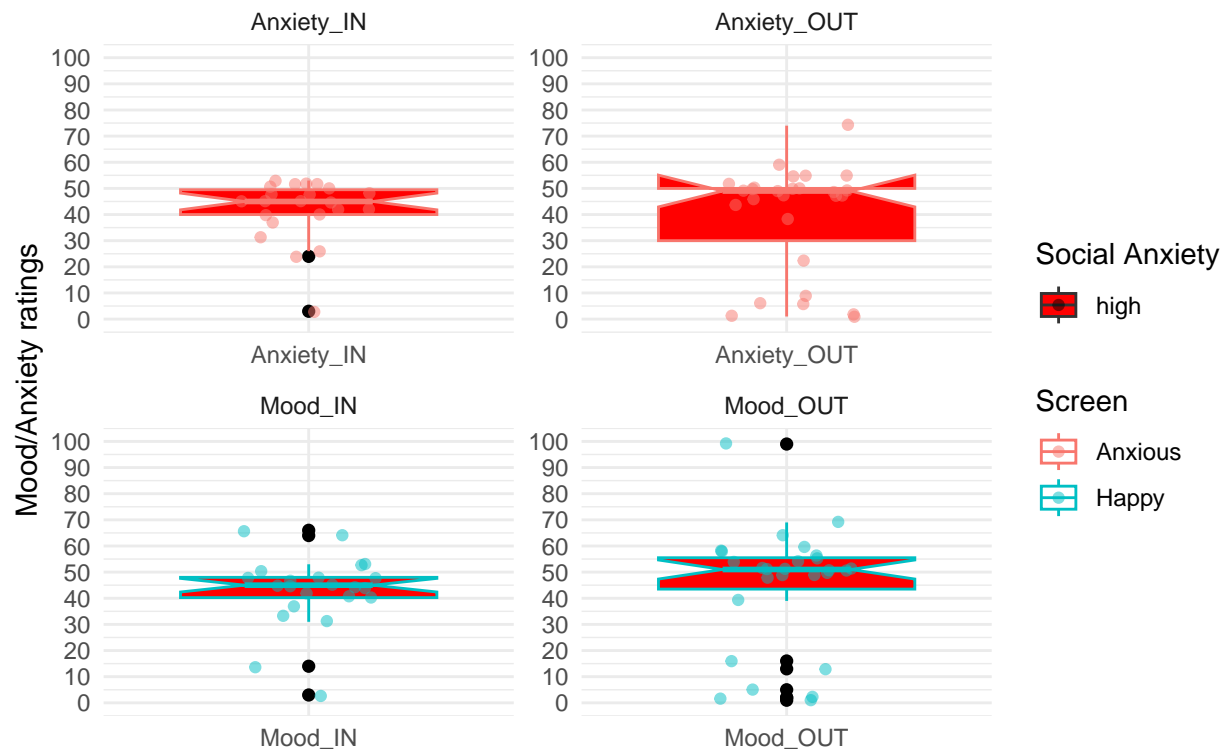




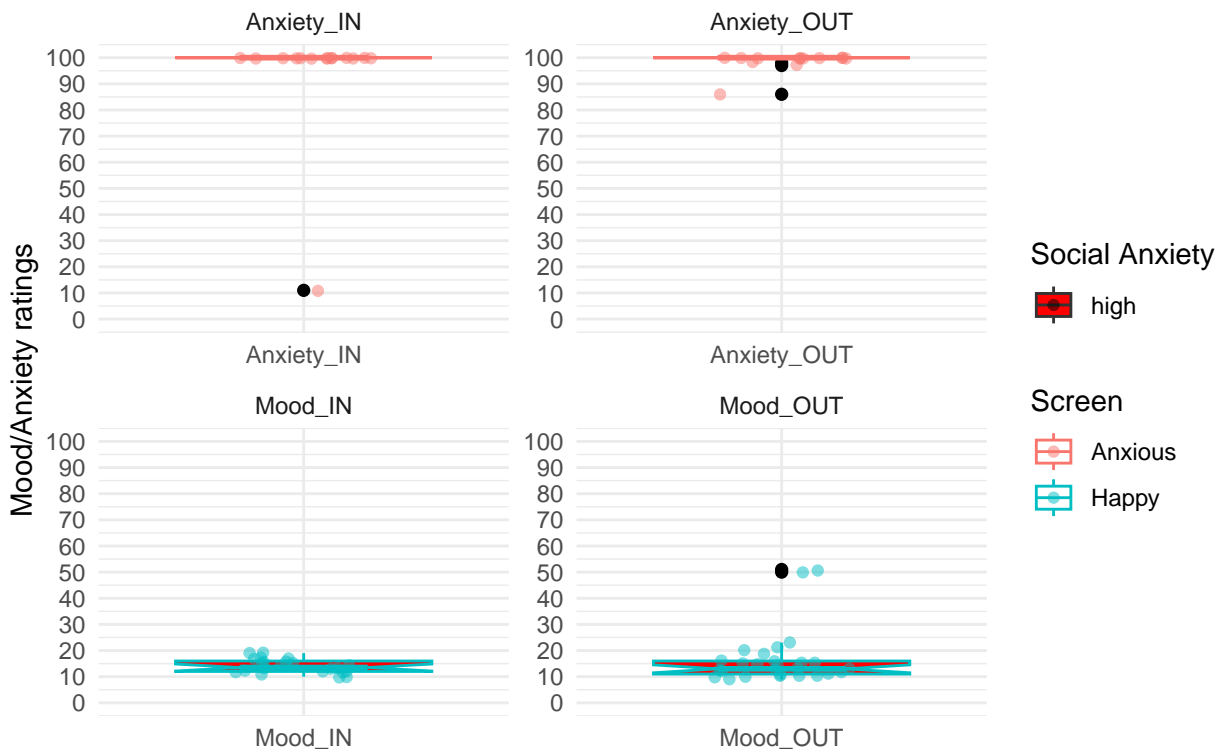
## Anxiety and Mood ratings for subject: SUPPRF39307



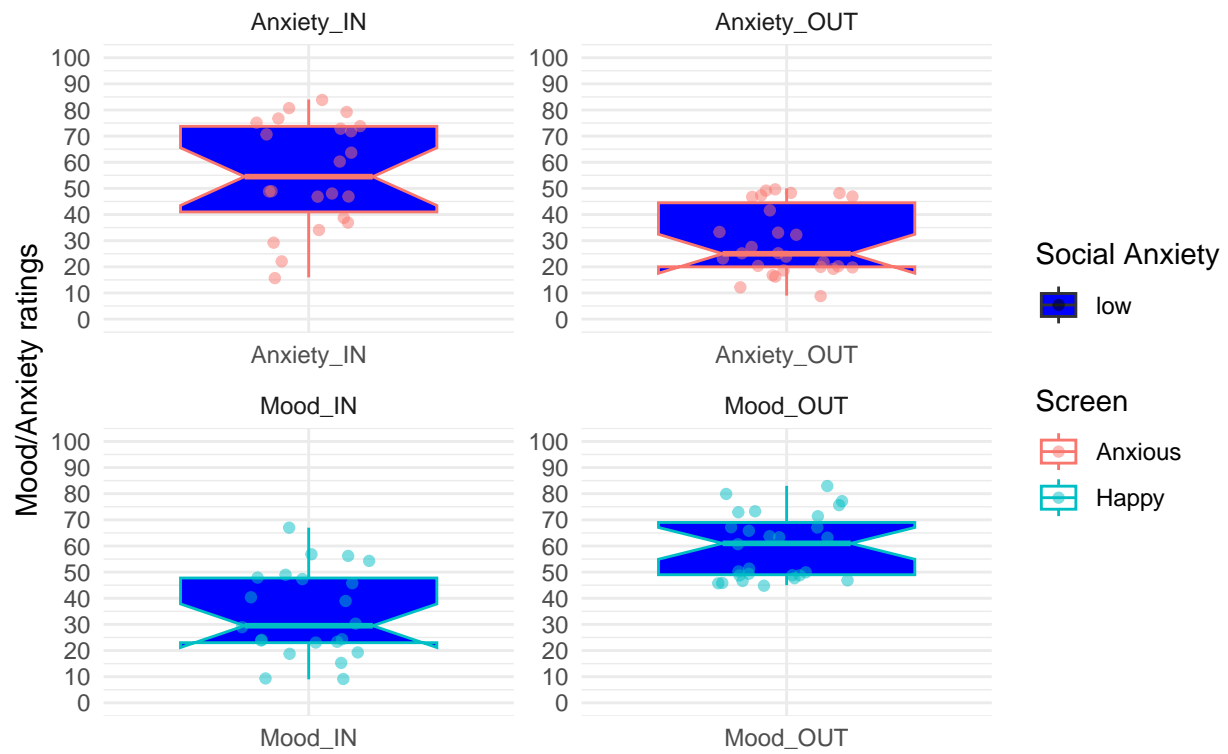
## Anxiety and Mood ratings for subject: SUPPRF16774



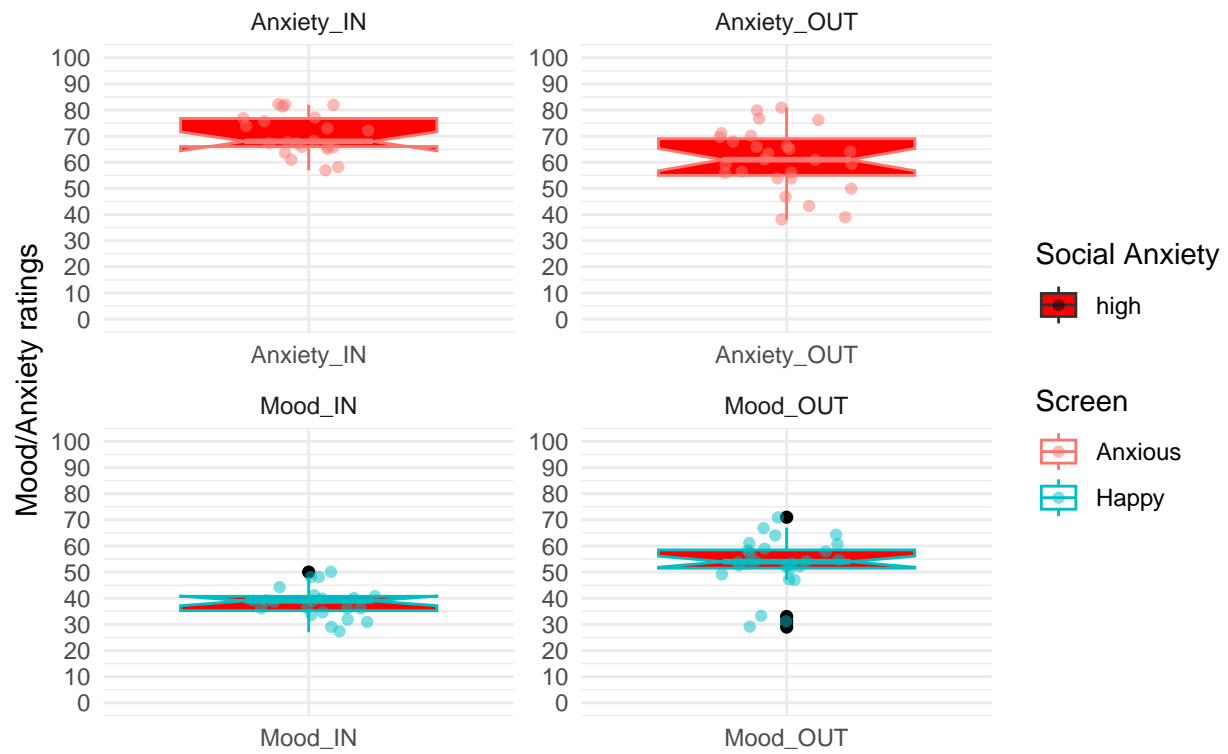
## Anxiety and Mood ratings for subject: SUPPRF50800



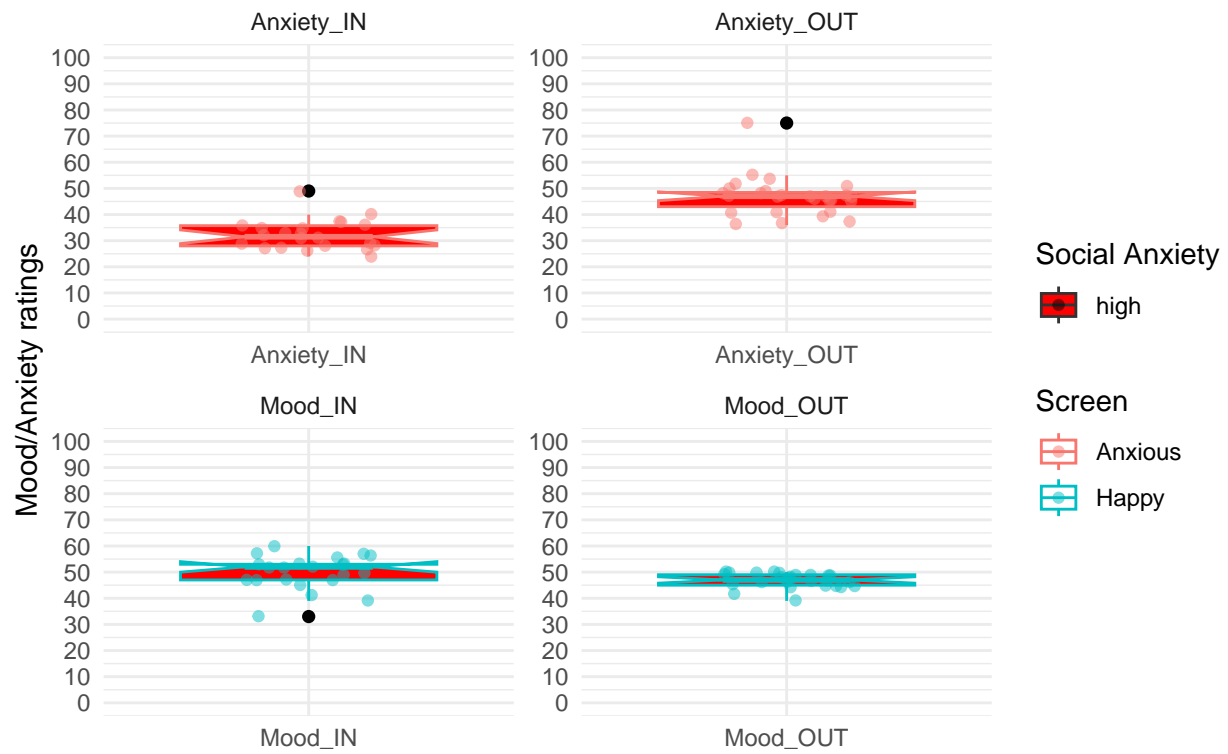
## Anxiety and Mood ratings for subject: SUPPRF59946



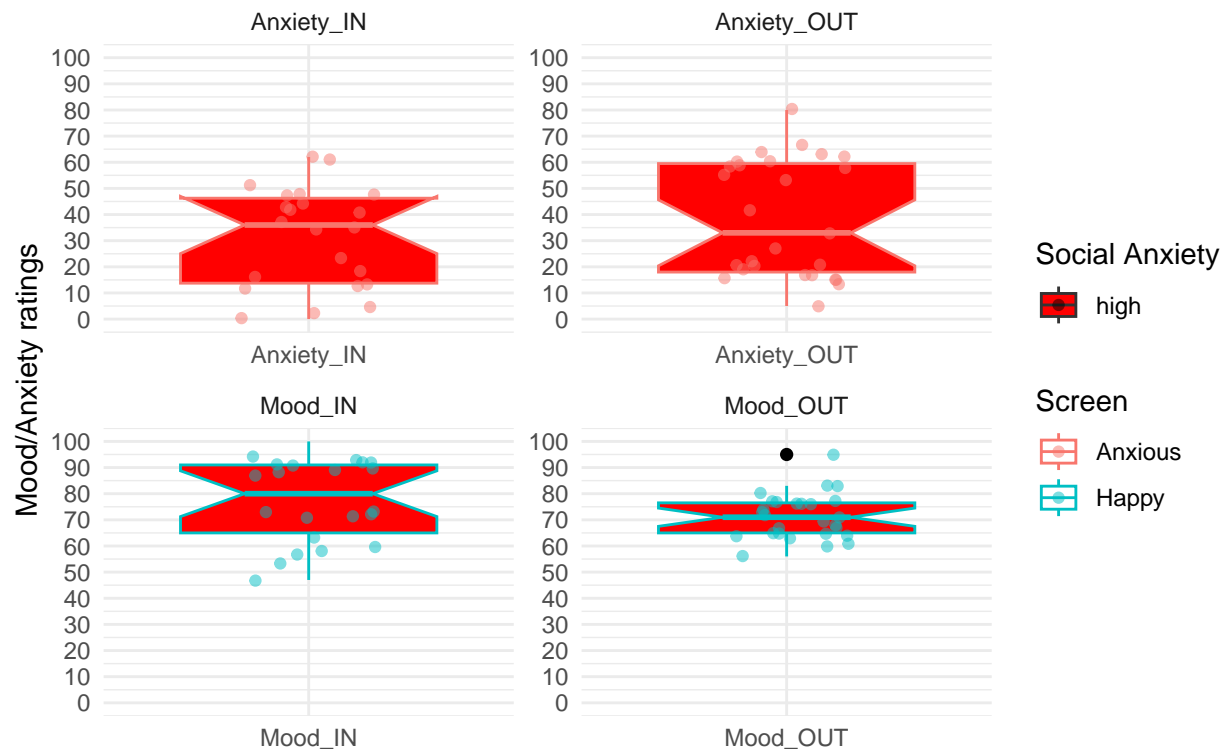
## Anxiety and Mood ratings for subject: SUPPRF47480



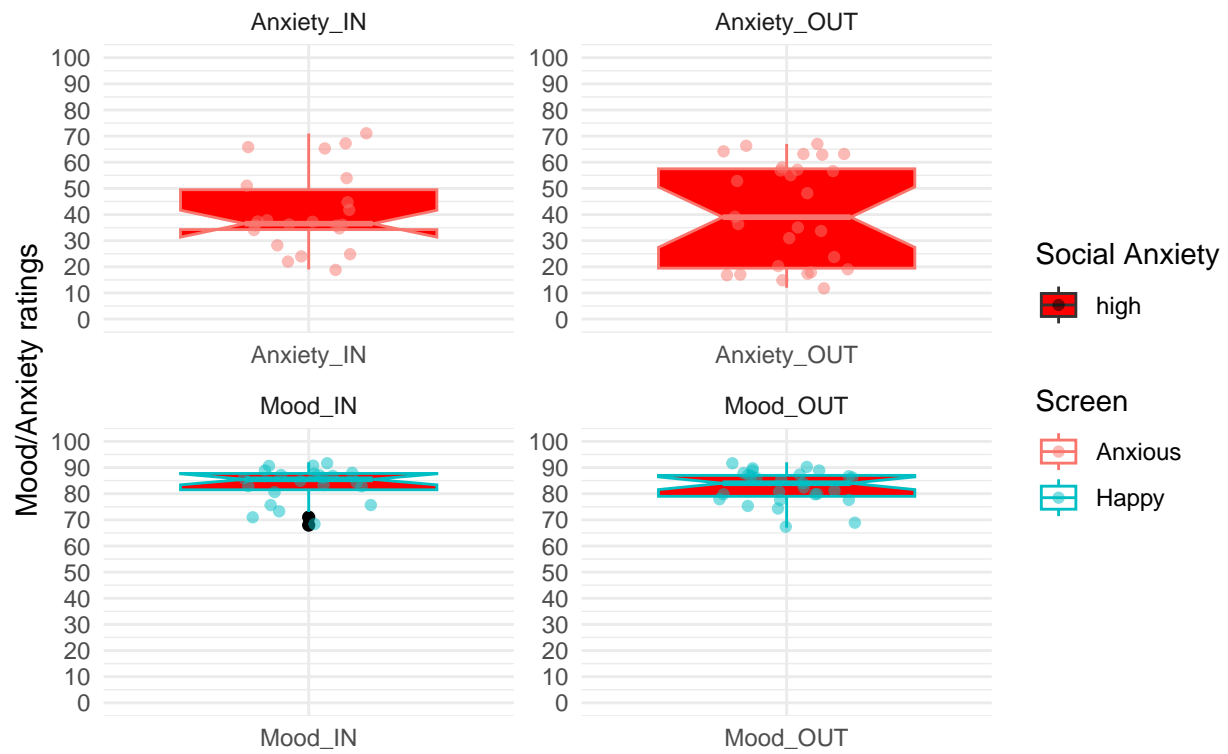
## Anxiety and Mood ratings for subject: SUPPRF13830



## Anxiety and Mood ratings for subject: SUPPRF78219

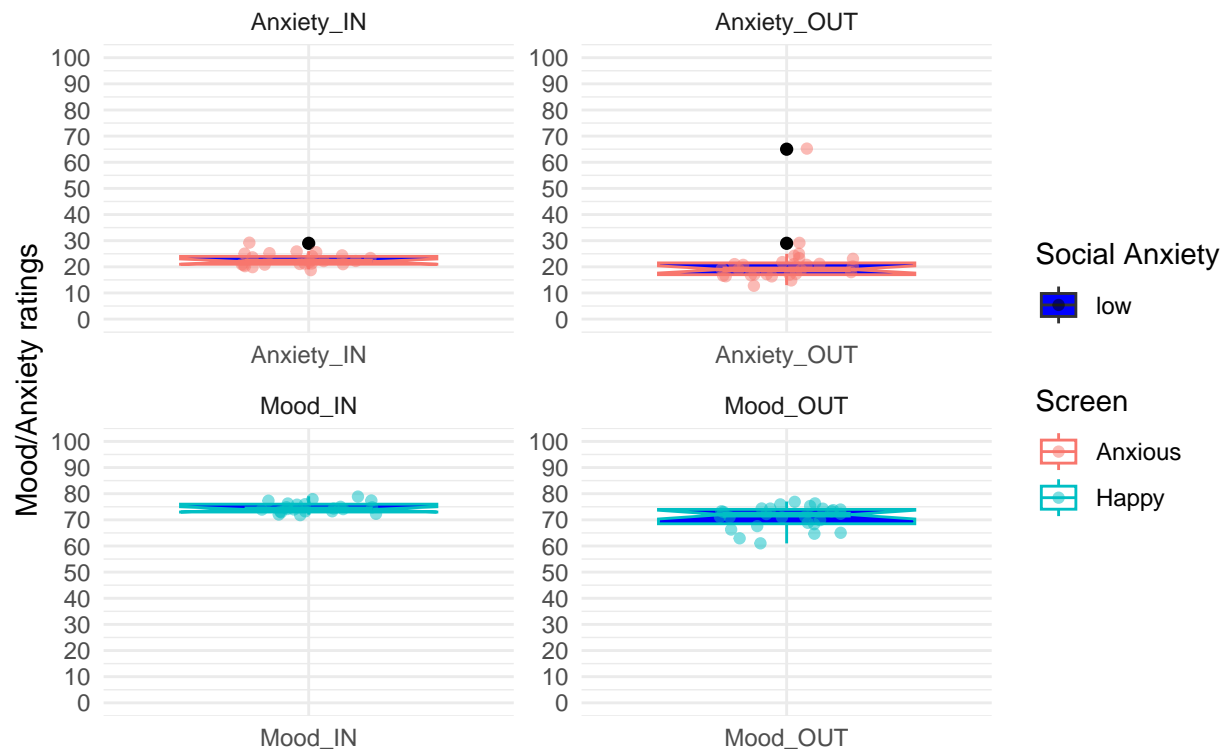


## Anxiety and Mood ratings for subject: SUPPRF39662

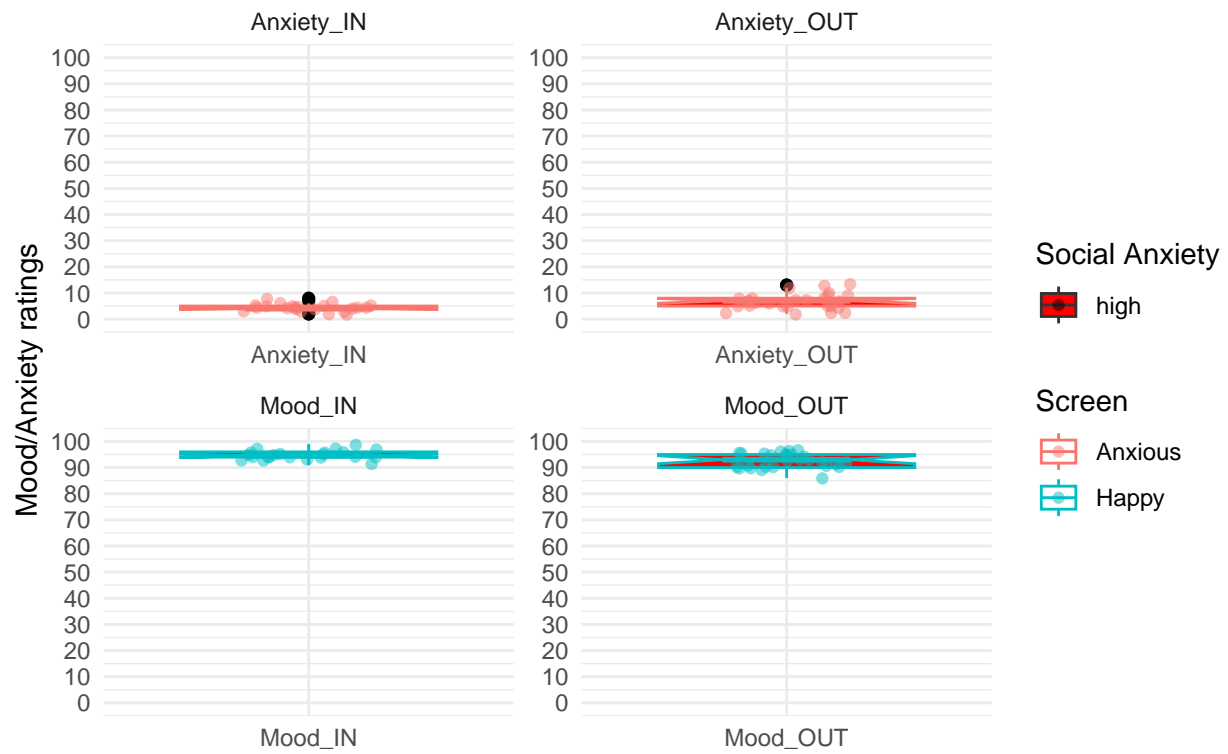




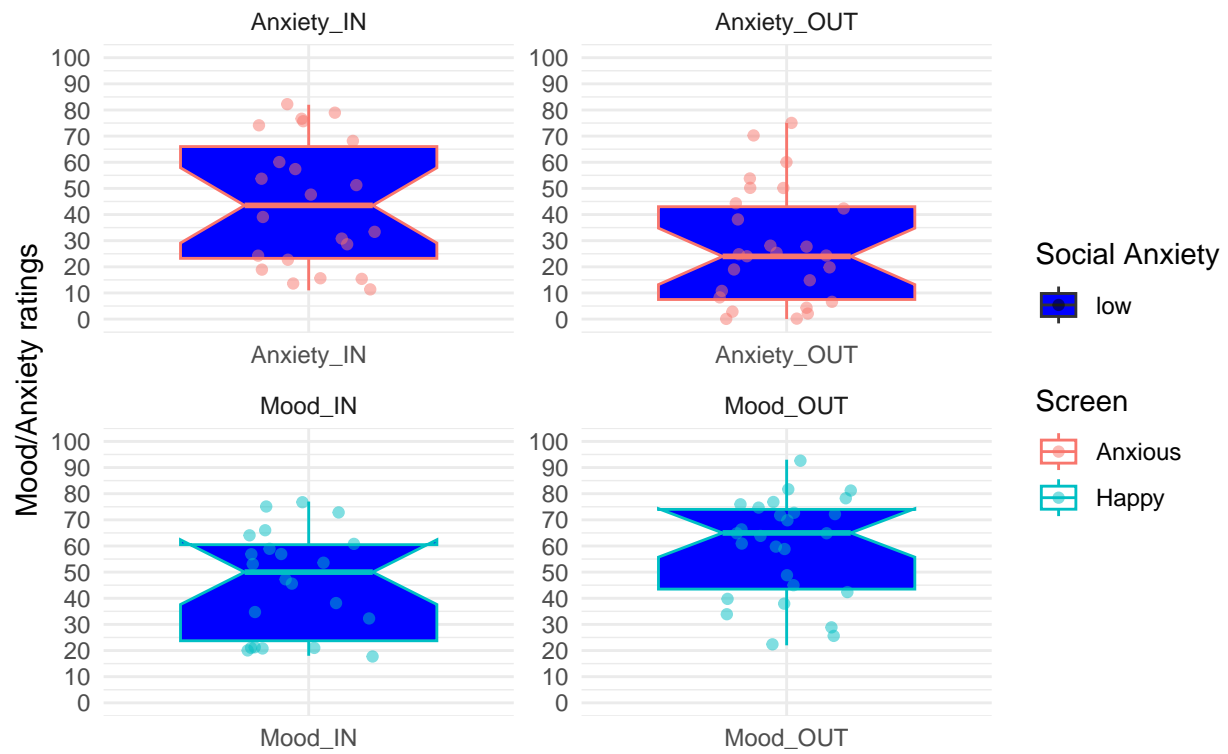
## Anxiety and Mood ratings for subject: SUPPRF11368



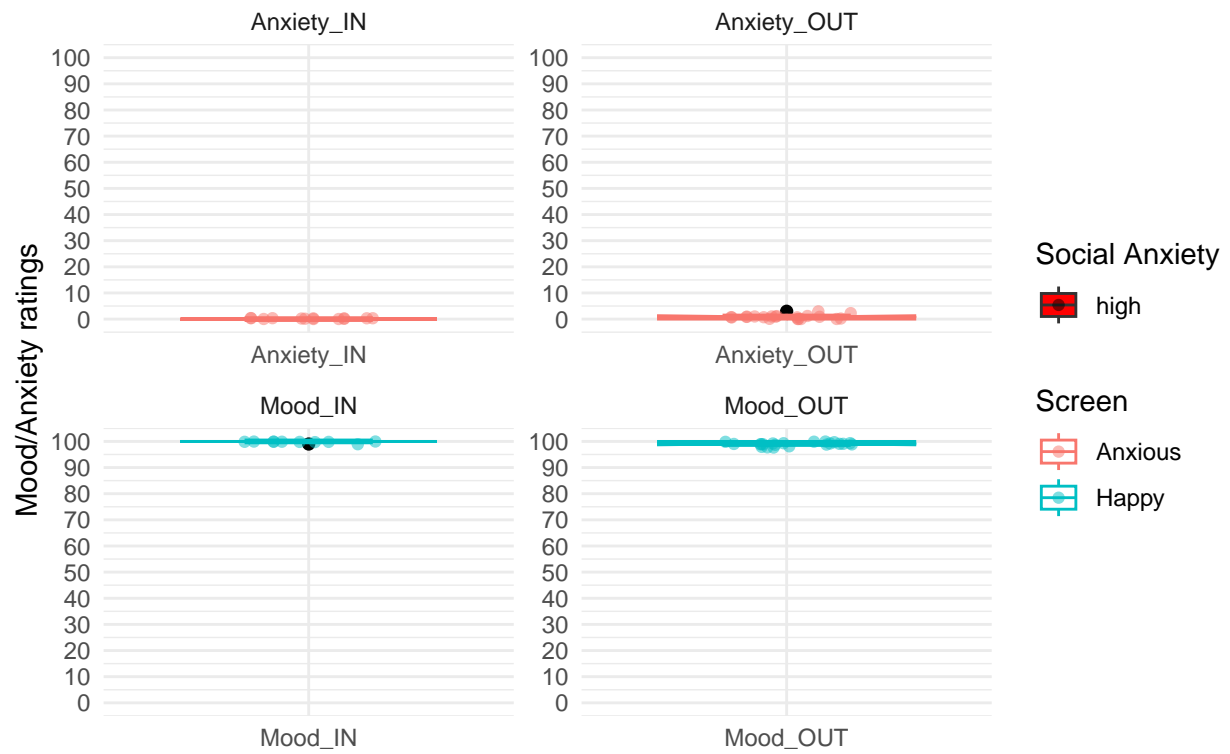
## Anxiety and Mood ratings for subject: SUPPRF54499



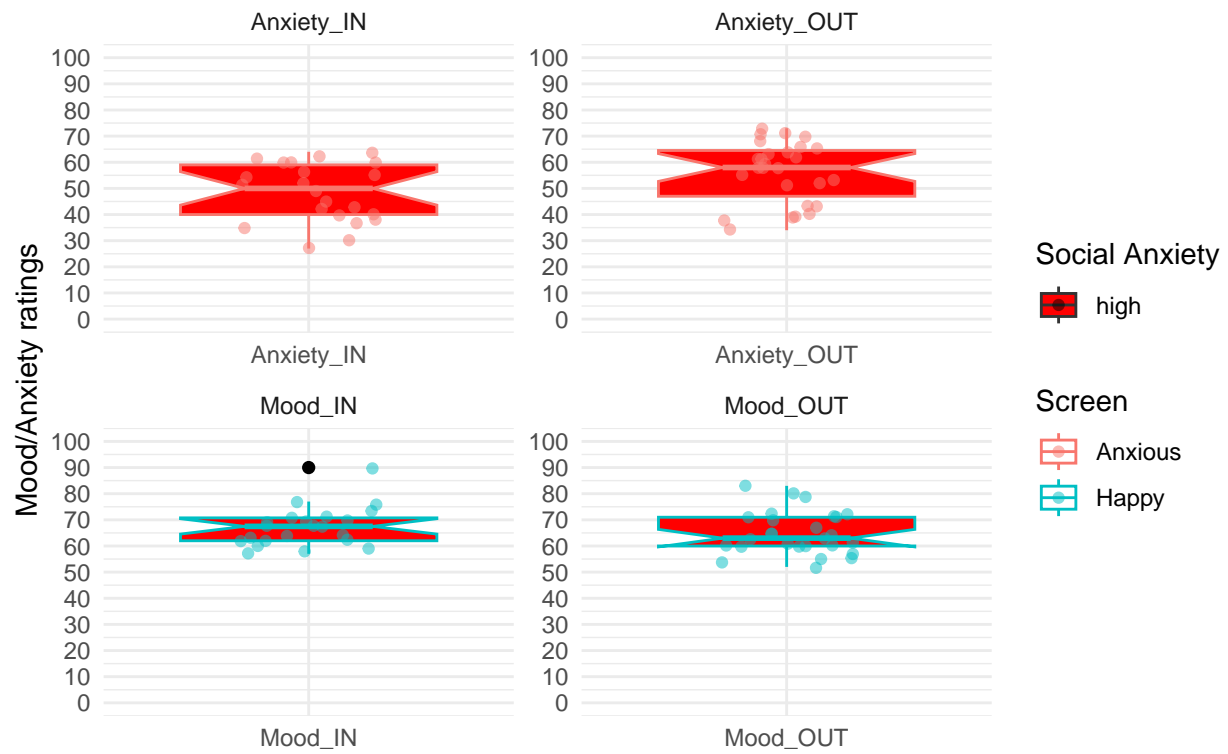
## Anxiety and Mood ratings for subject: SUPPRF07775



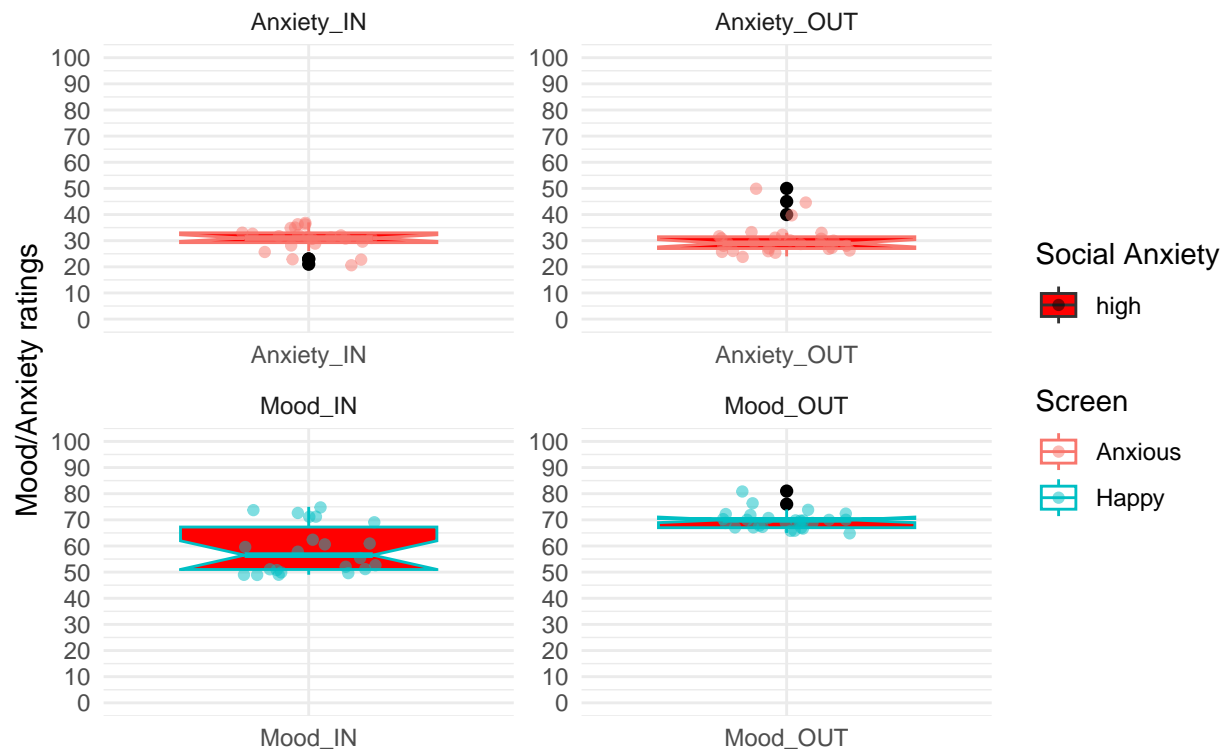
# Anxiety and Mood ratings for subject: SUPPRF09833



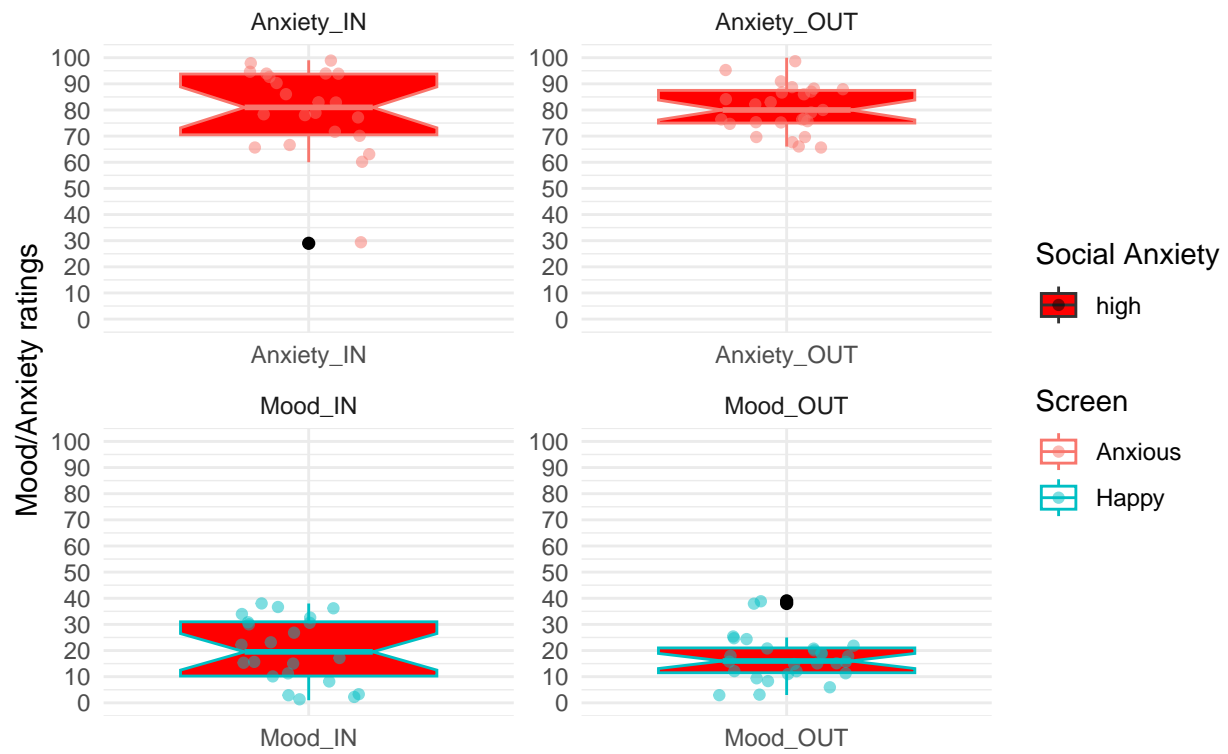
## Anxiety and Mood ratings for subject: SUPPRF73005



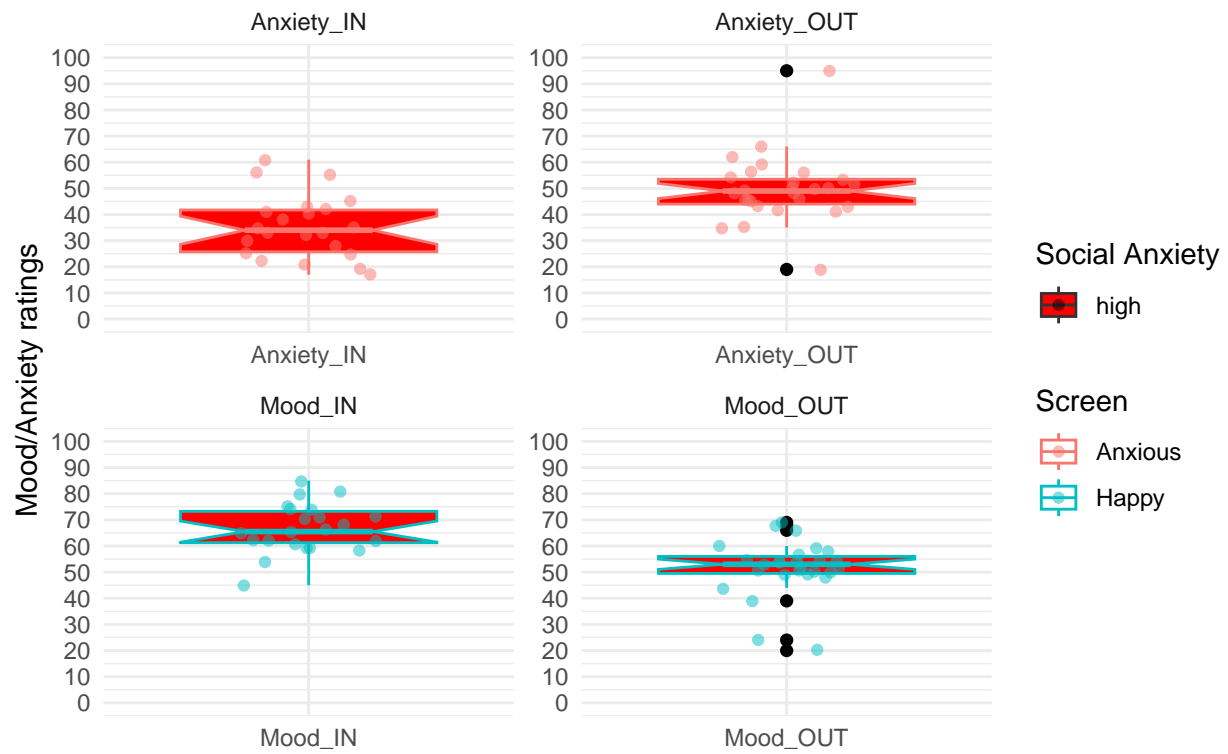
# Anxiety and Mood ratings for subject: SUPPRF80411



## Anxiety and Mood ratings for subject: SUPPRF66399

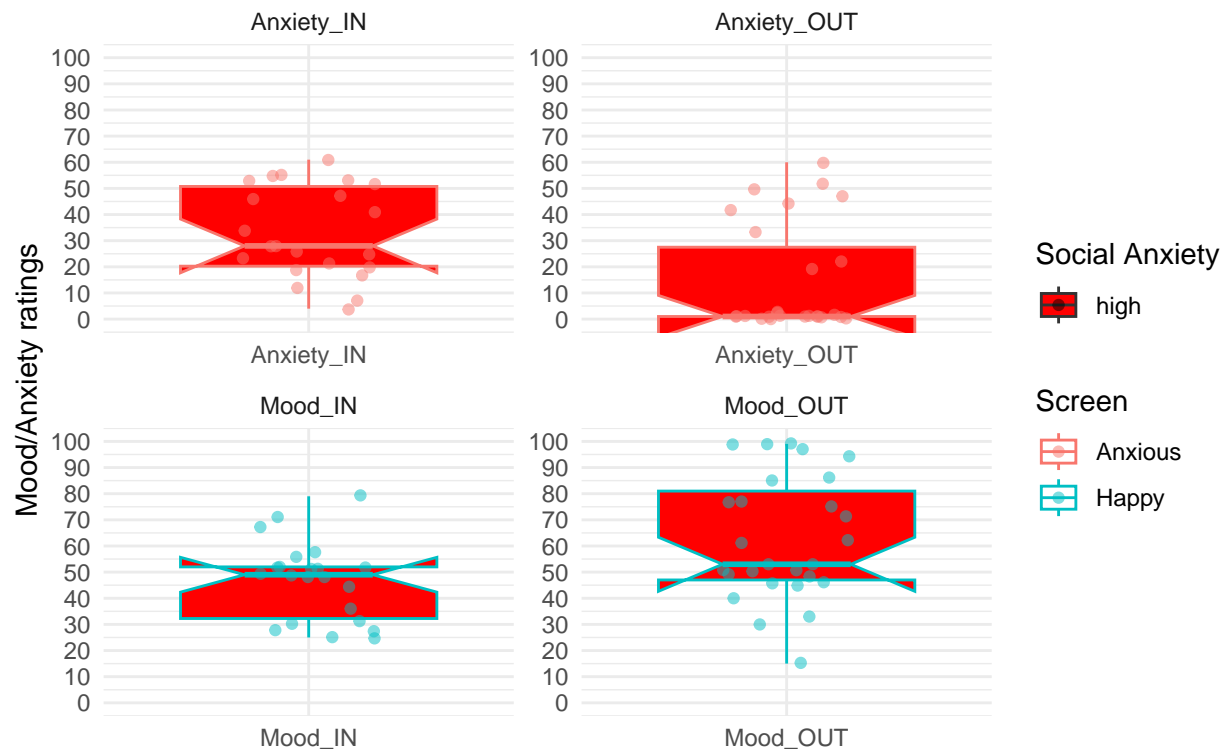


## Anxiety and Mood ratings for subject: SUPPRF33488

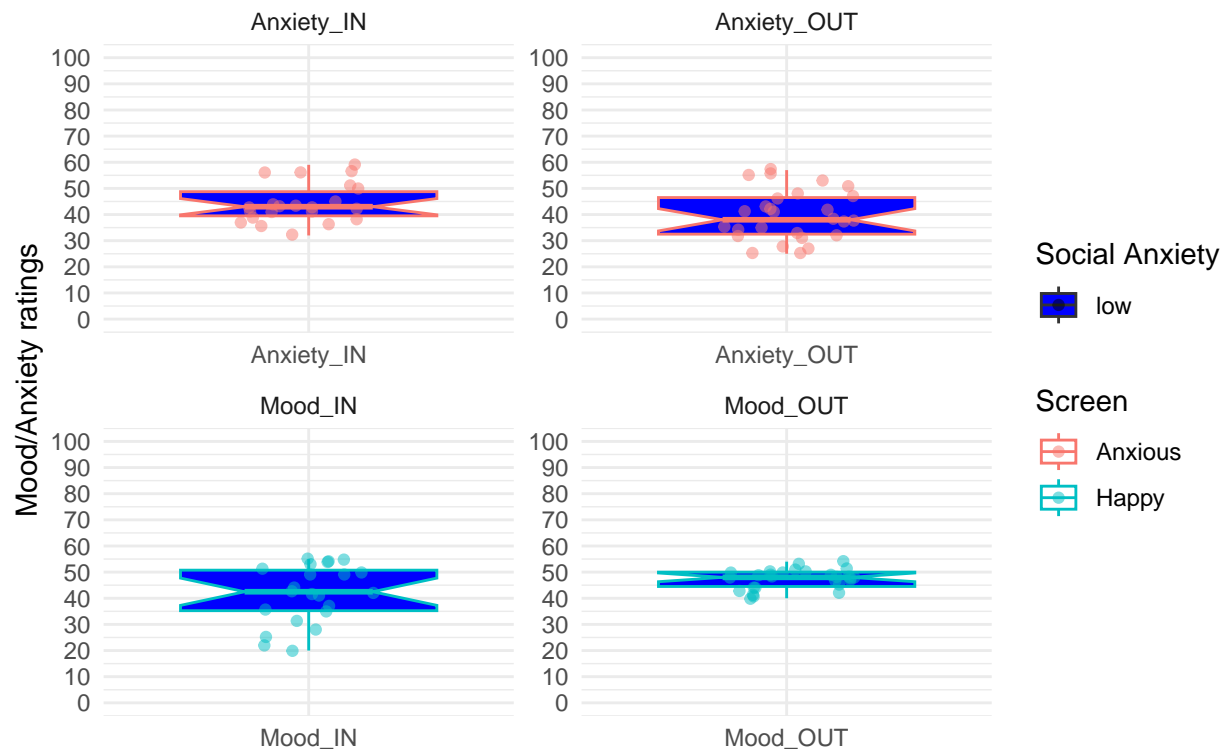




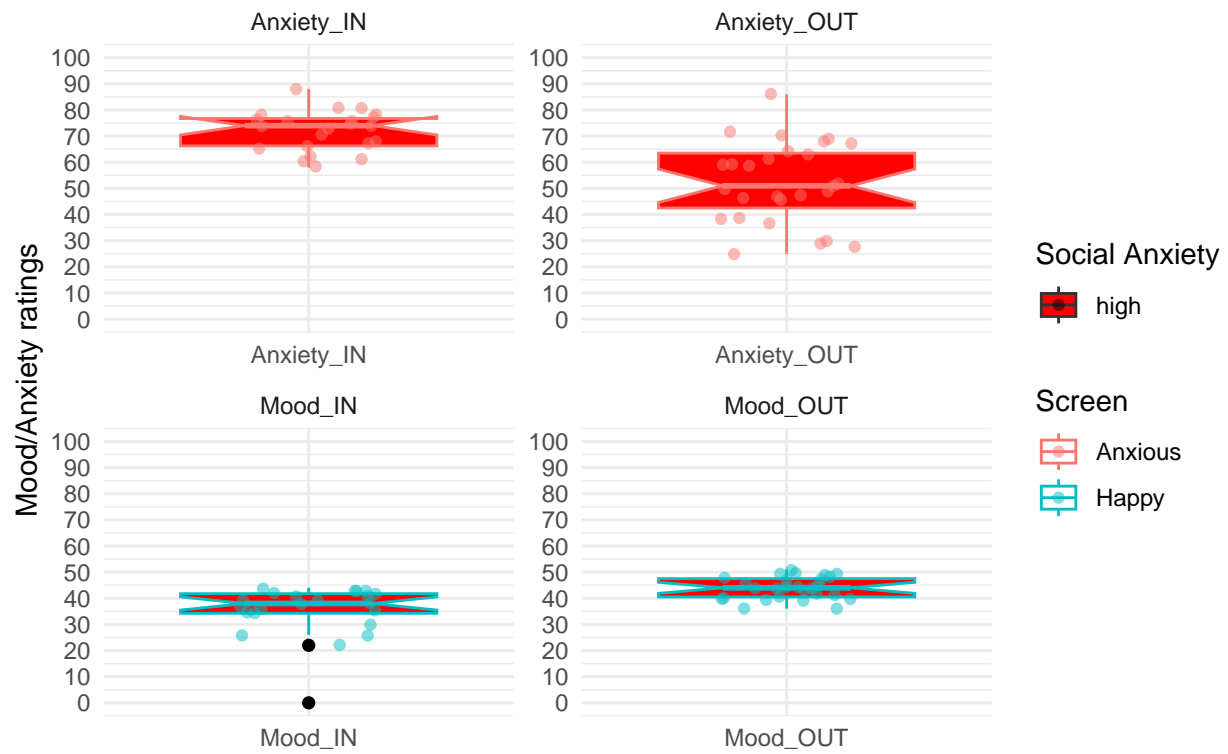
## Anxiety and Mood ratings for subject: SUPPRF83636



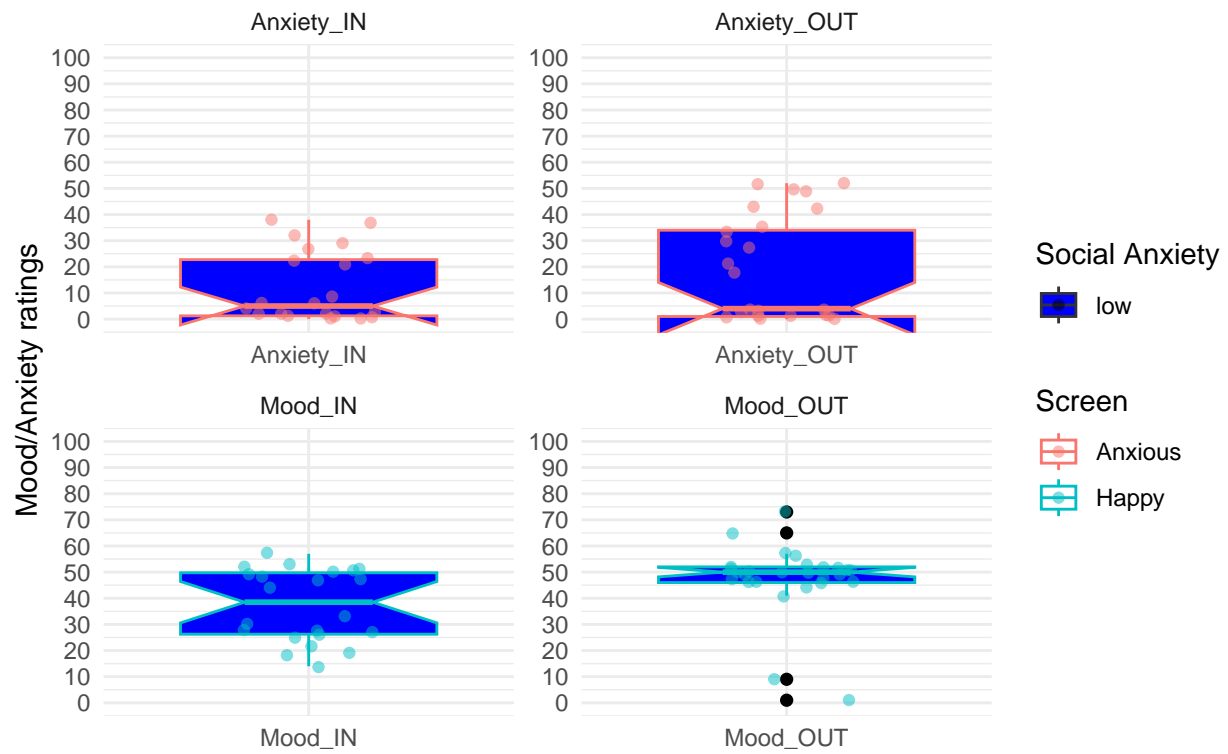
## Anxiety and Mood ratings for subject: SUPPRF46512



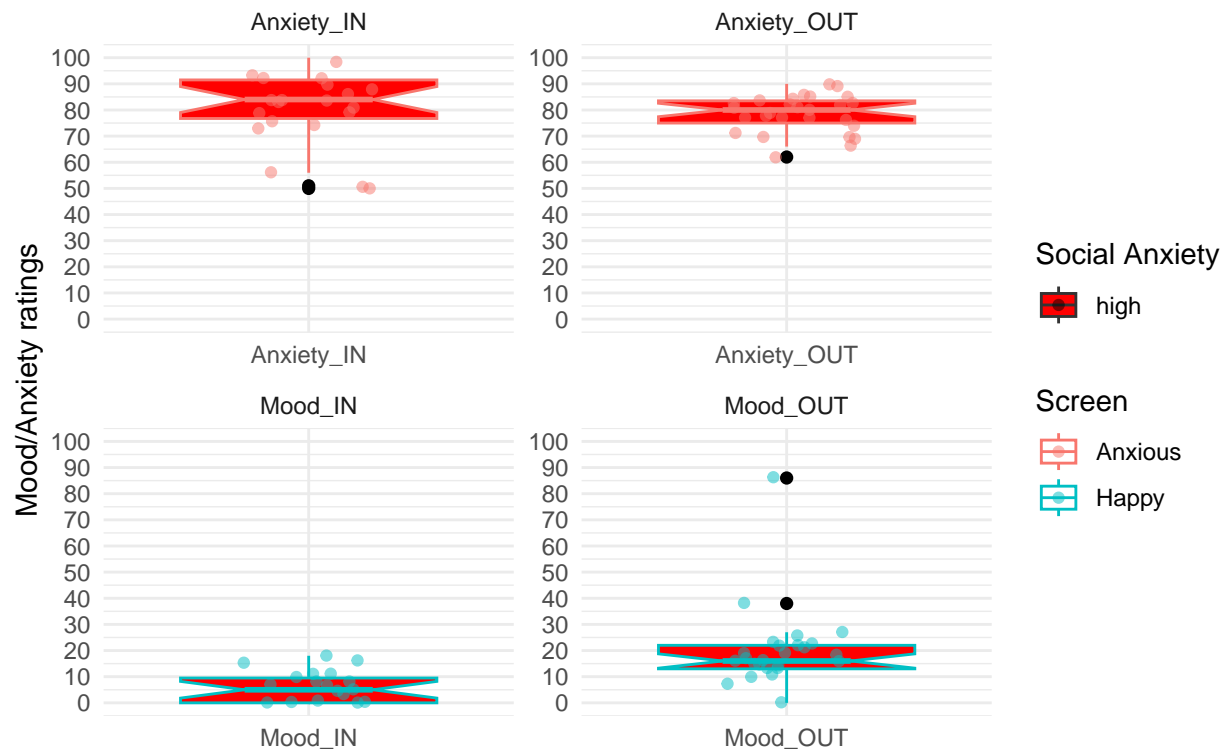
## Anxiety and Mood ratings for subject: SUPPRF79316



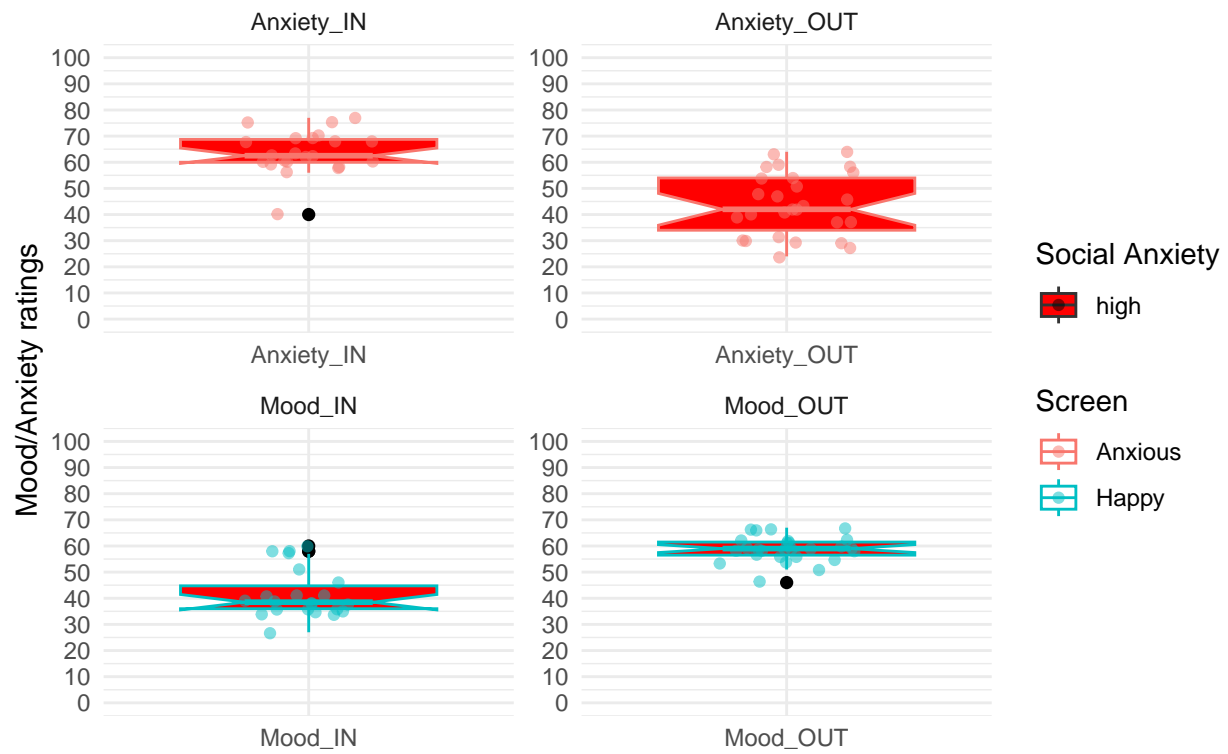
## Anxiety and Mood ratings for subject: SUPPRF41237



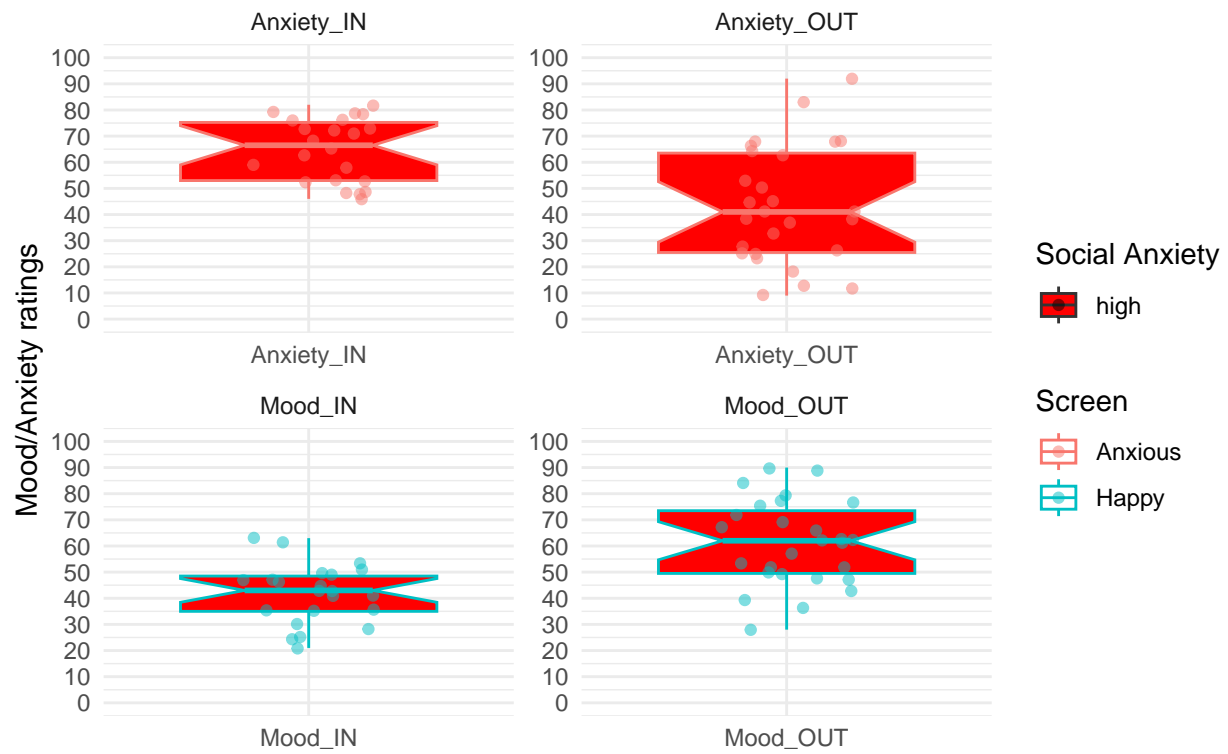
# Anxiety and Mood ratings for subject: SUPPRF62780



## Anxiety and Mood ratings for subject: SUPPRF80900



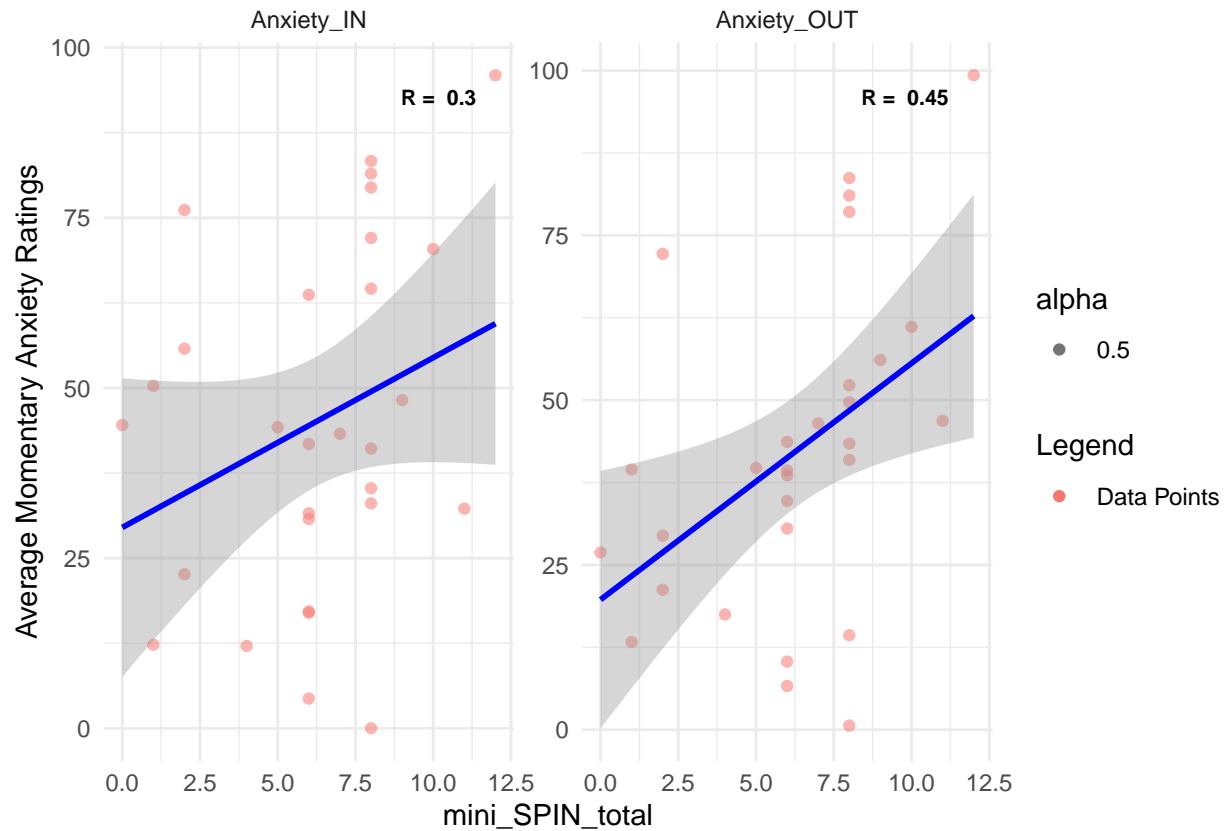
## Anxiety and Mood ratings for subject: SUPPRF34449



## Relationship between mini\_SPIN and momentary anxiety ratings

The plot below show the relationship between the (average) anxiety ratings on the task and total mini\_SPIN scores.

```
## [1] "correlation between mini_SPIN_total and average anxiety ratings: 0.371658363191696"
```

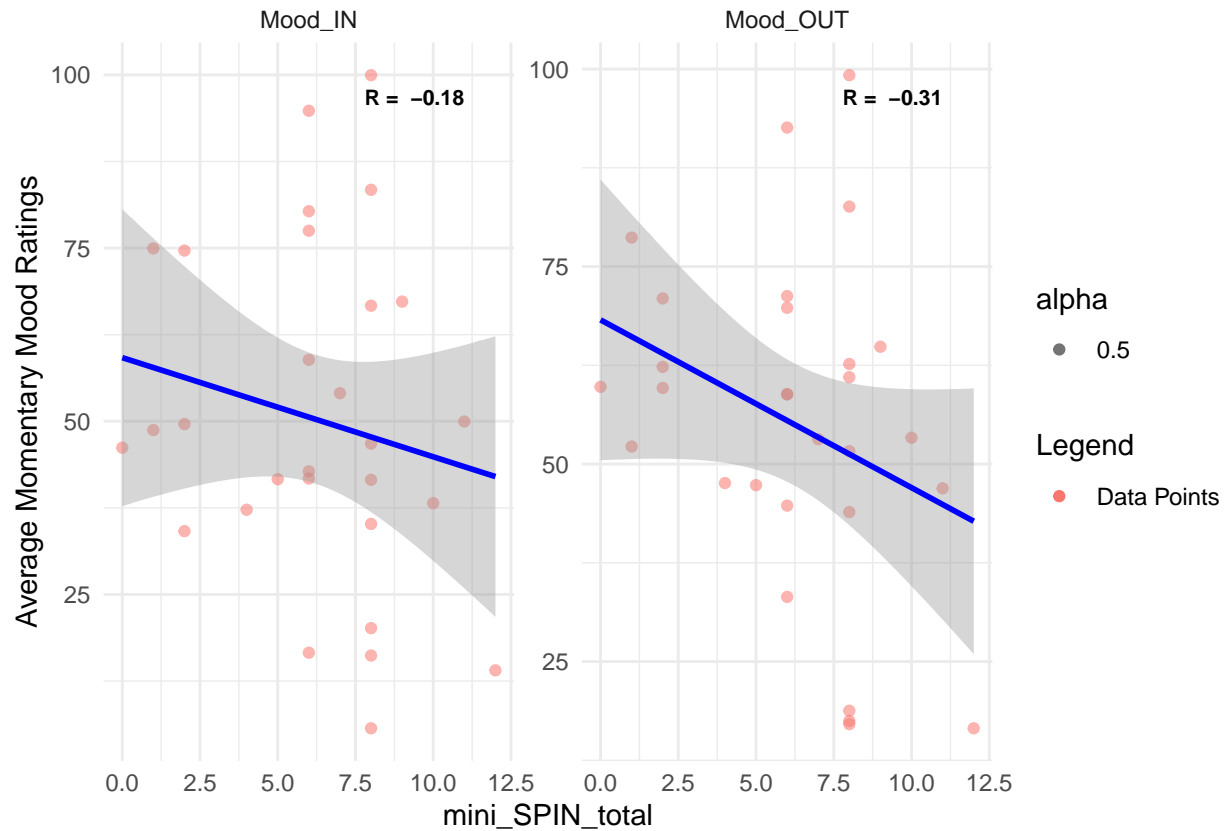




## Relationship between mini\_SPIN and momentary mood ratings

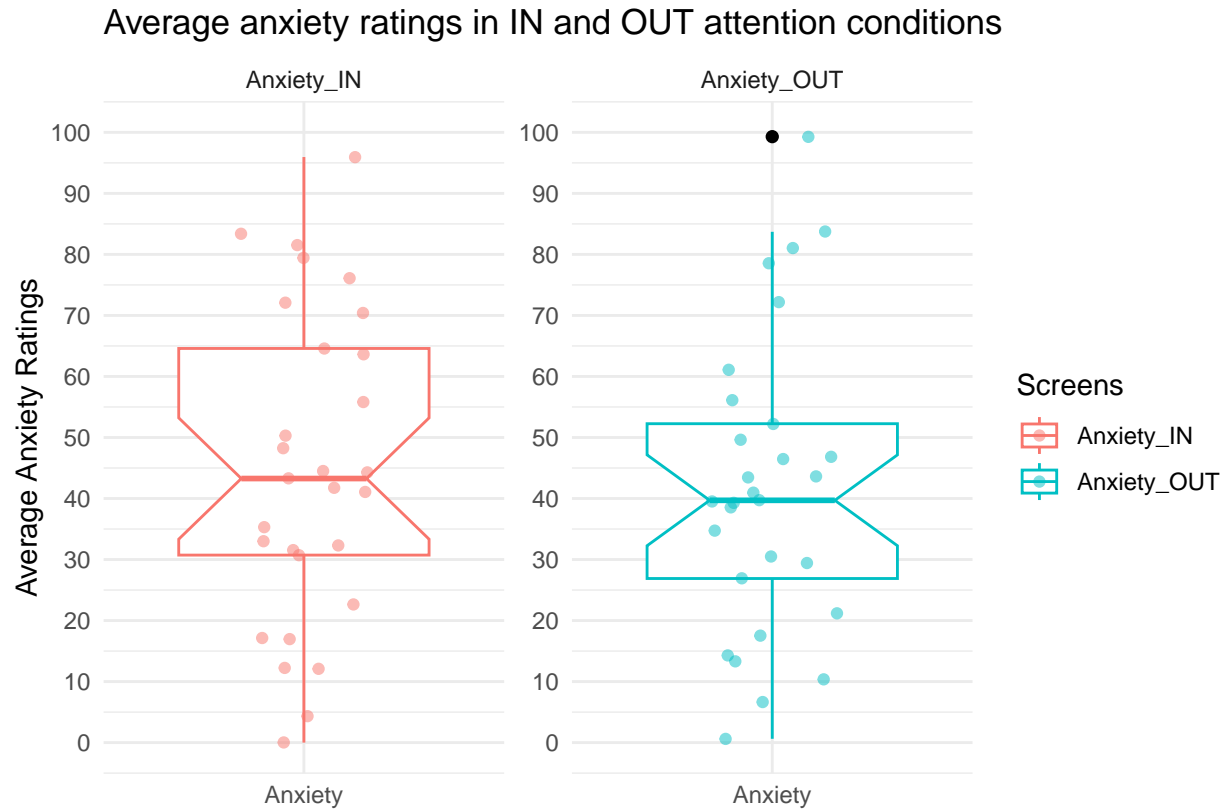
The plot below show the relationship between (average) mood ratings on the task and the total mini\_SPIN scores.

```
## [1] "correlation between mini_SPIN_total and average anxiety ratings: -0.244178582278169"
```



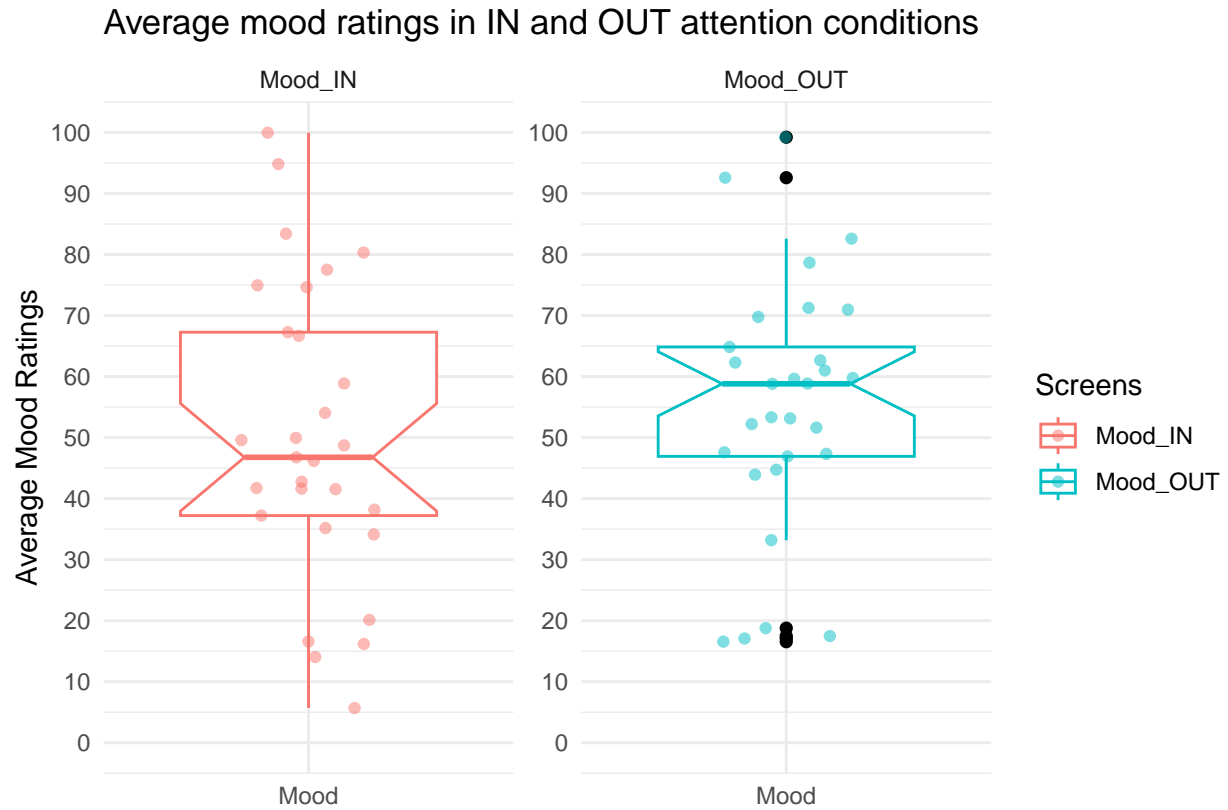
## Average Anxiety in IN and OUT attention conditions

The plot below show the average anxiety ratings in IN and OUT attention conditions where people paid internal and external attention respectively. I think without the outlier (black dot), the difference becomes bigger, will test it later.



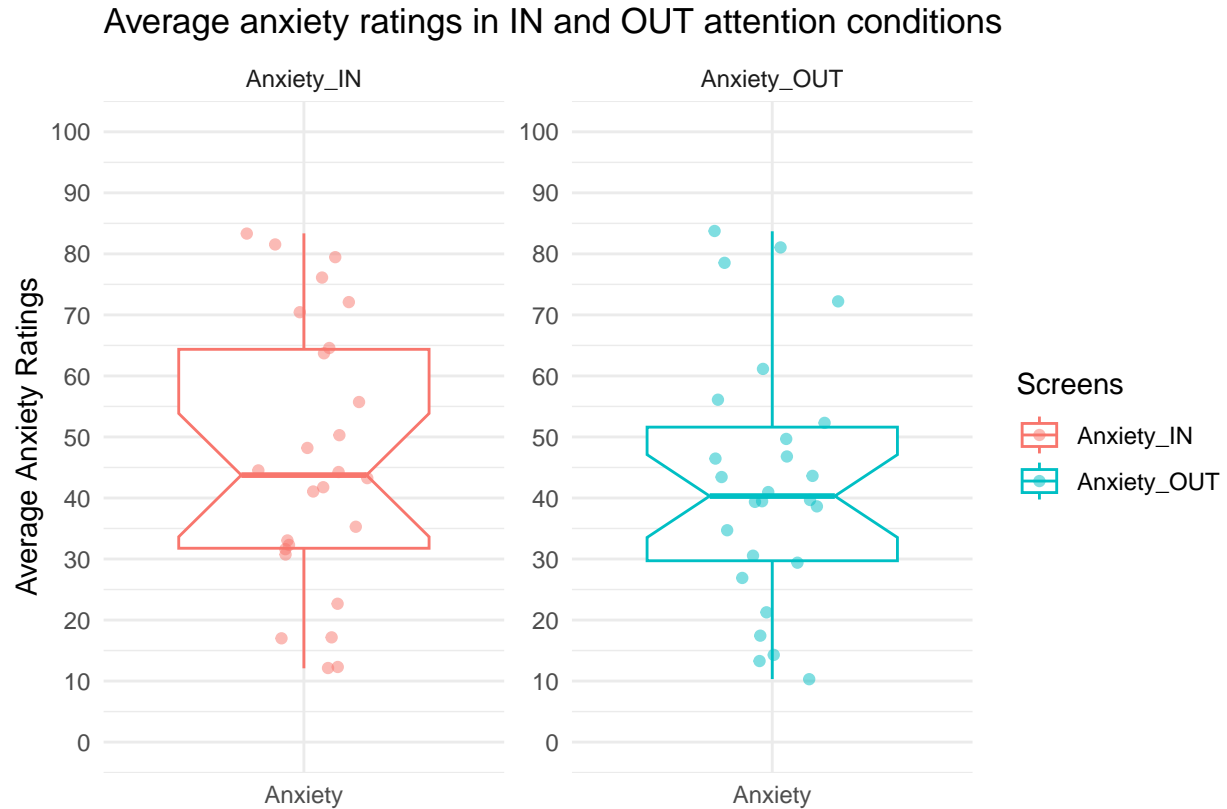
## Average Mood in IN and OUT attention conditions

The plot below show the average mood ratings in IN and OUT attention conditions where people paid internal and external attention respectively.

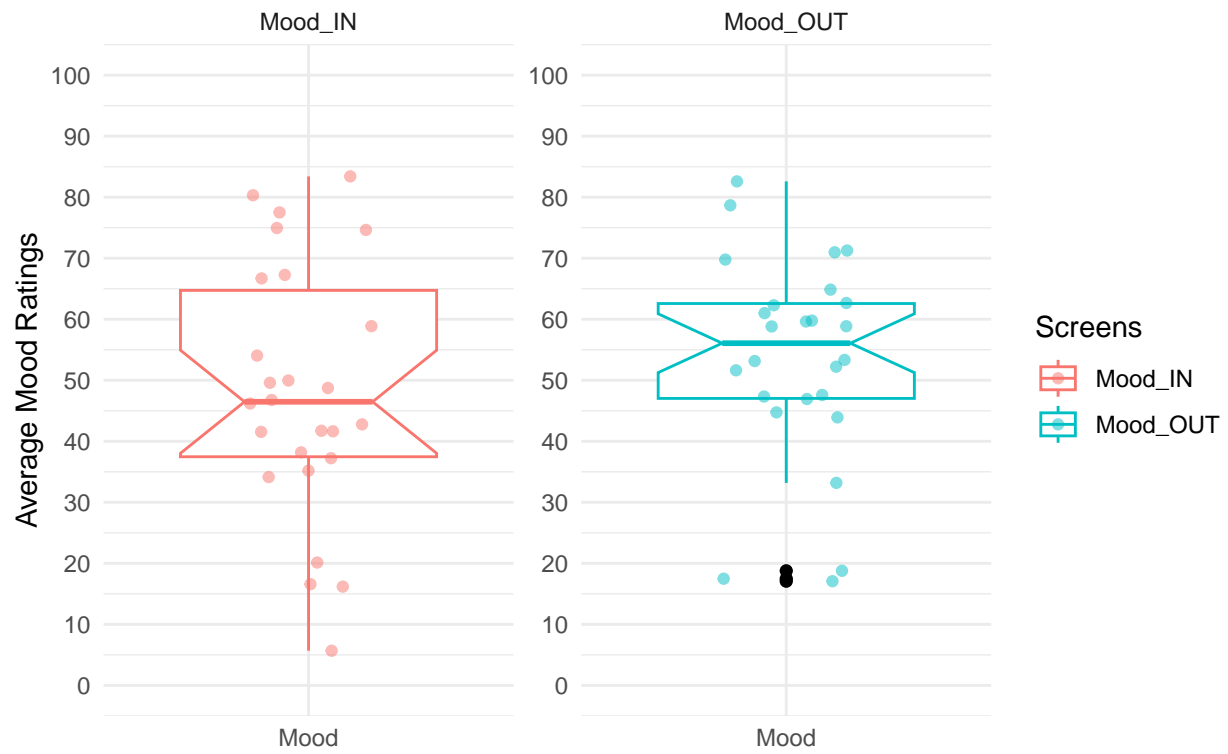


## Repeating the group plots after excluding outliers

I have excluded the following subjects to see how the group plots change: “SUPPRF09833”, “SUPPRF54499”, “SUPPRF50800”. They all had rated the same scores for anxiety and mood throughout the task (their histograms above are flat).



## Average mood ratings in IN and OUT attention conditions



## Between condition tests

Since in this version we only had the mood and anxiety ratings without feedback and prediction, let's have a look at between condition differences per emotion rating (Mood and Anxiety) using two paired t-tests. We could look at the slopes for both attention conditions using a model with only the intercept?

```
##
## Paired t-test
##
## data: Mood_IN and Mood_OUT
## t = -2.4443, df = 28, p-value = 0.02107
## alternative hypothesis: true mean difference is not equal to 0
## 95 percent confidence interval:
## -8.7567902 -0.7715971
## sample estimates:
## mean difference
## -4.764194

##
## Paired t-test
##
## data: Anxiety_IN and Anxiety_OUT
## t = 1.4346, df = 28, p-value = 0.1625
## alternative hypothesis: true mean difference is not equal to 0
## 95 percent confidence interval:
## -1.282521 7.277064
## sample estimates:
## mean difference
## 2.997272
```

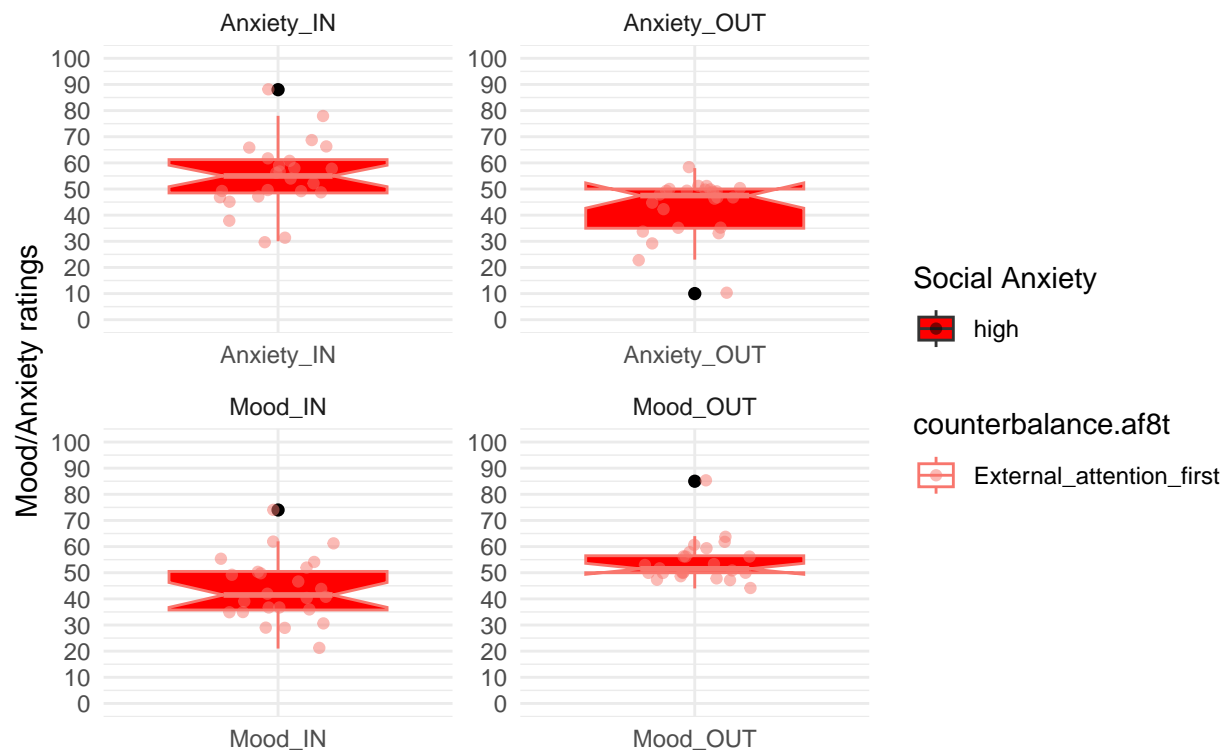
## Attention pilot 2: study description

This pilot was the same as before but we had 59 people counterbalancing the order of conditions between them. Another difference with previous attention pilot is that around 51% of people had high social anxiety scores, and this was 72% in attention pilot 1.

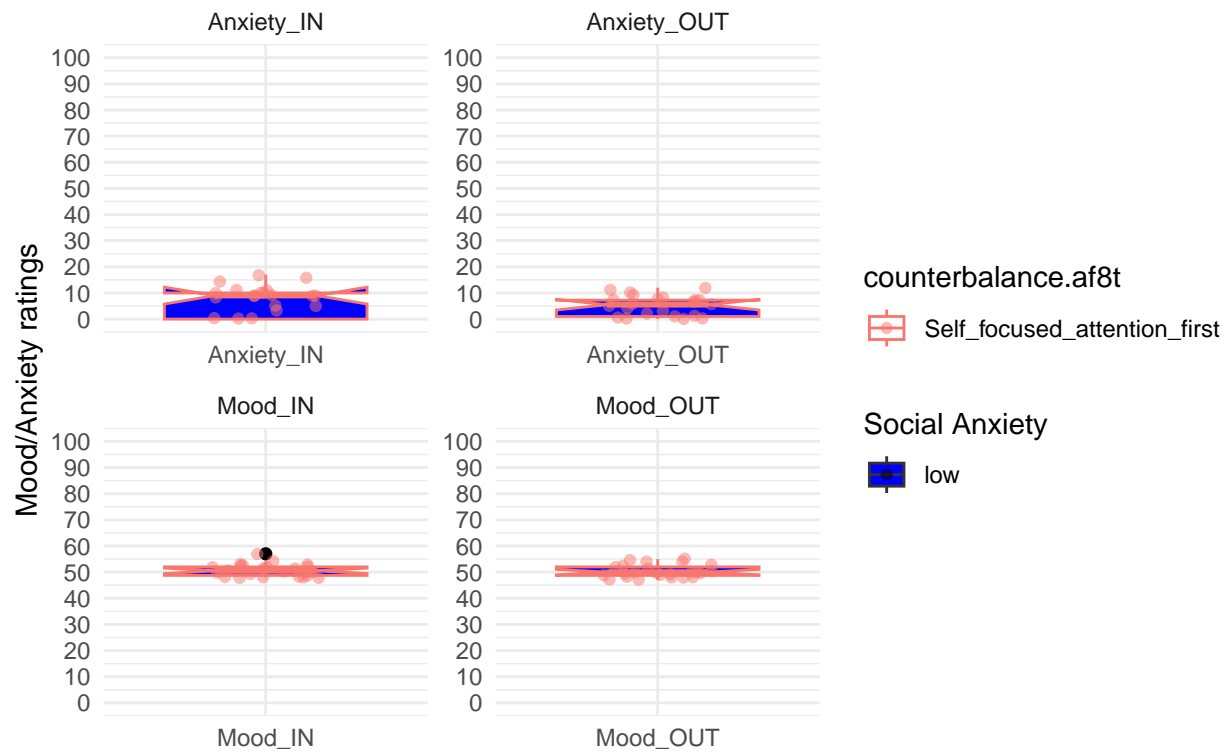
This was the Gorilla experiment: <https://app.gorilla.sc/admin/experiment/157047/design> This was the task used: <https://app.gorilla.sc/admin/task/725729/editor?version=10>

```
## [1] "30 subjects out of 58 had high social anxiety"
```

### Anxiety and Mood ratings for subject: SUPPRF01609

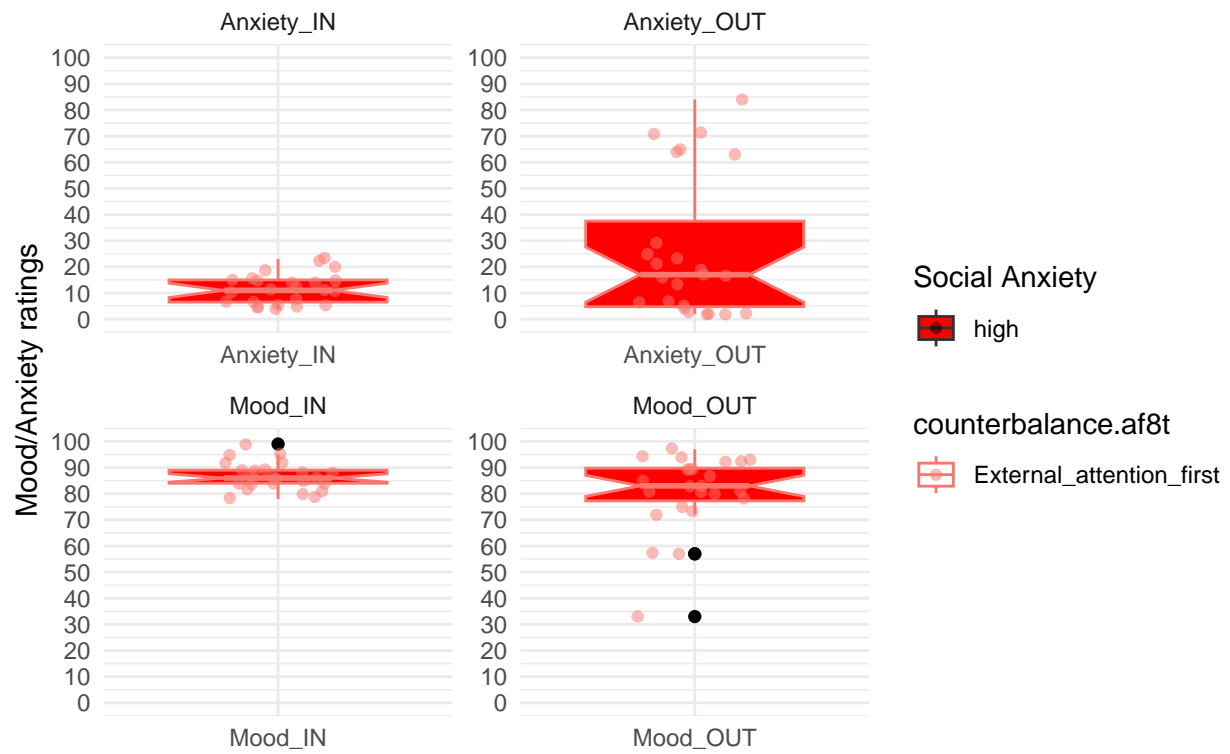


## Anxiety and Mood ratings for subject: SUPPRF02996

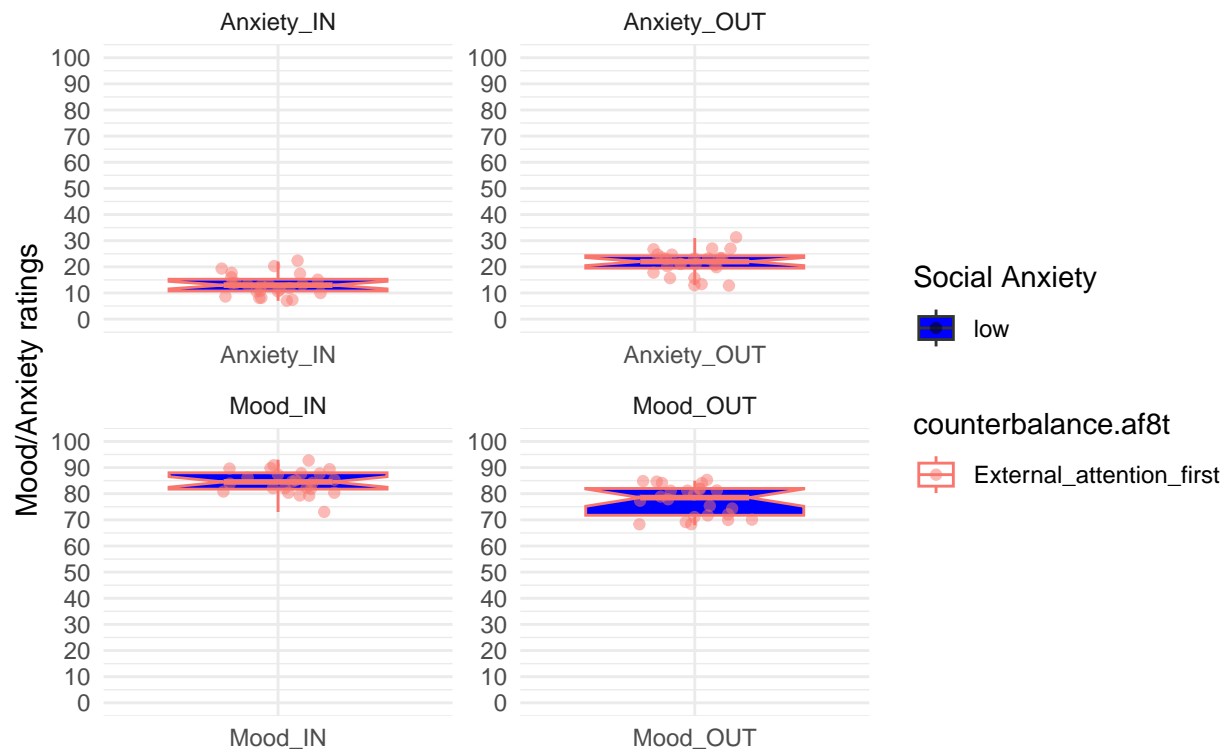




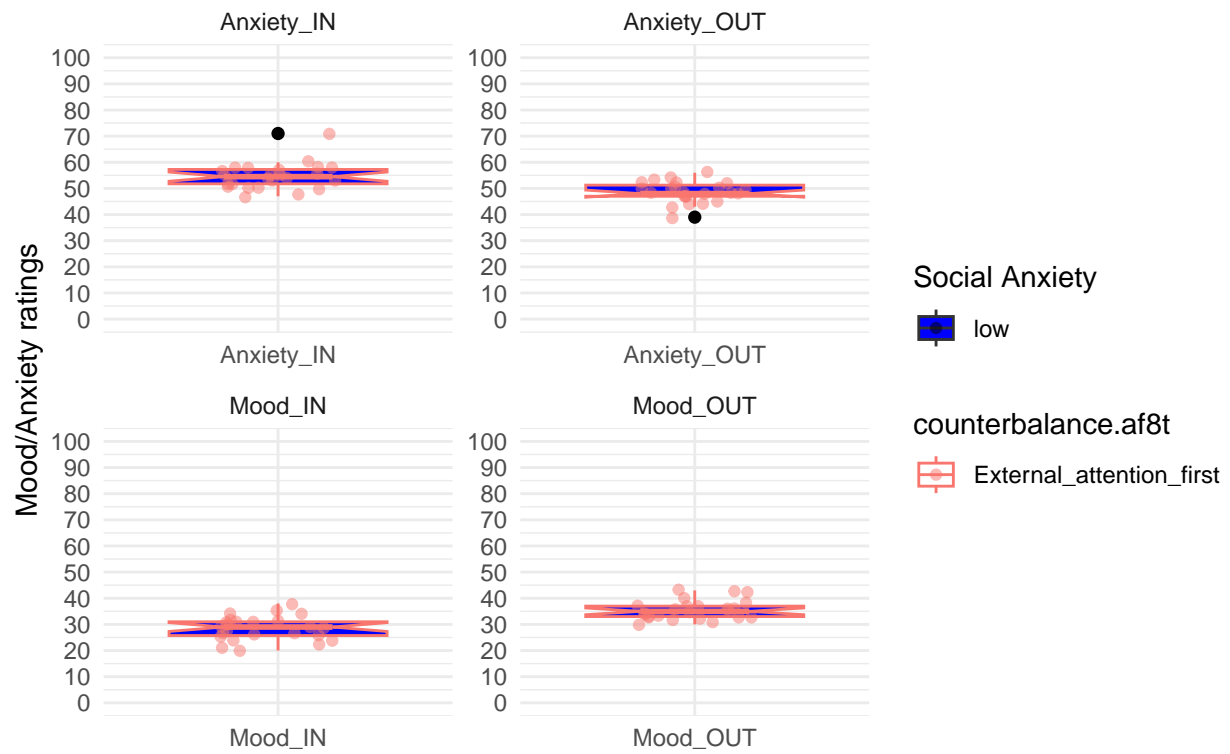
# Anxiety and Mood ratings for subject: SUPPRF04851



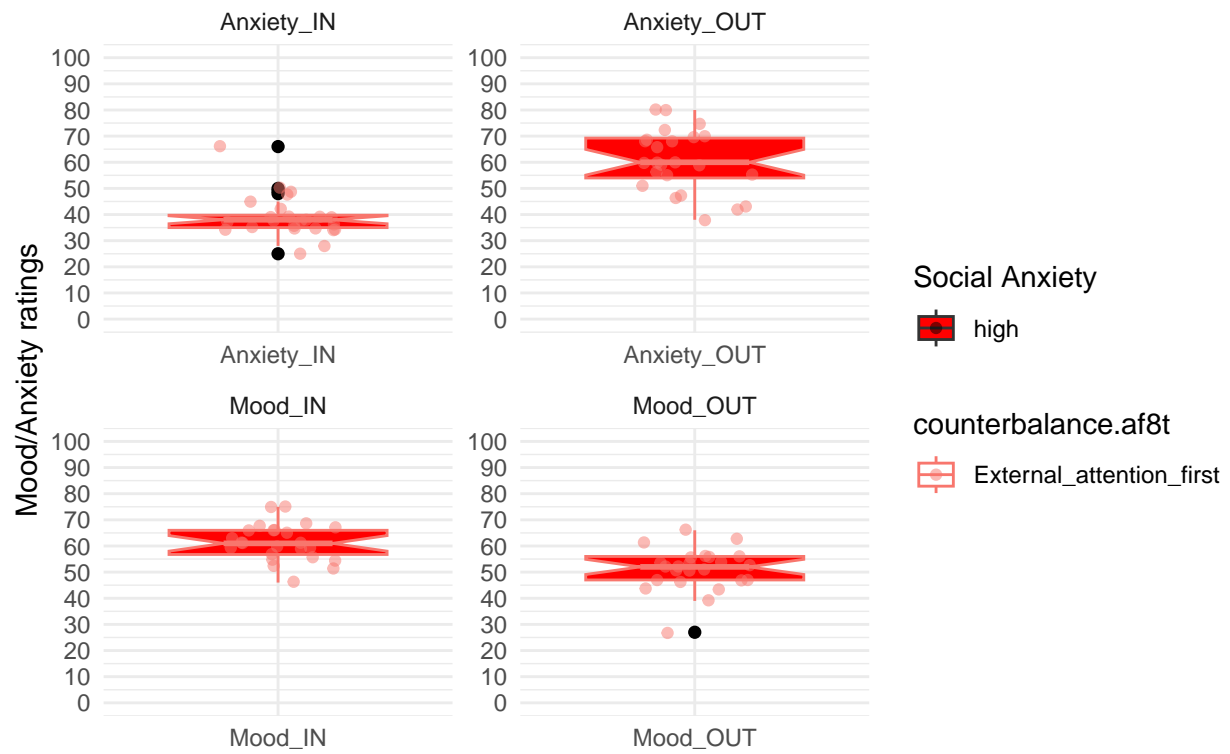
## Anxiety and Mood ratings for subject: SUPPRF05707



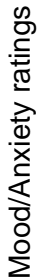
## Anxiety and Mood ratings for subject: SUPPRF07871



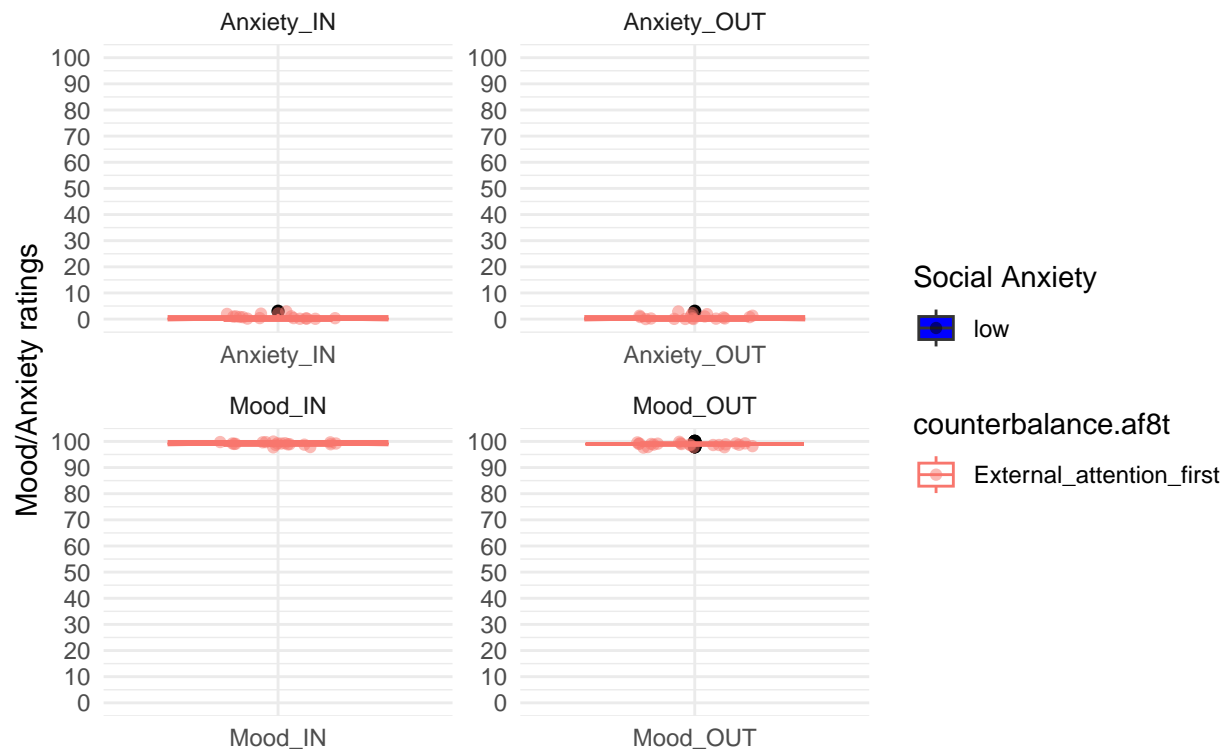
## Anxiety and Mood ratings for subject: SUPPRF08809



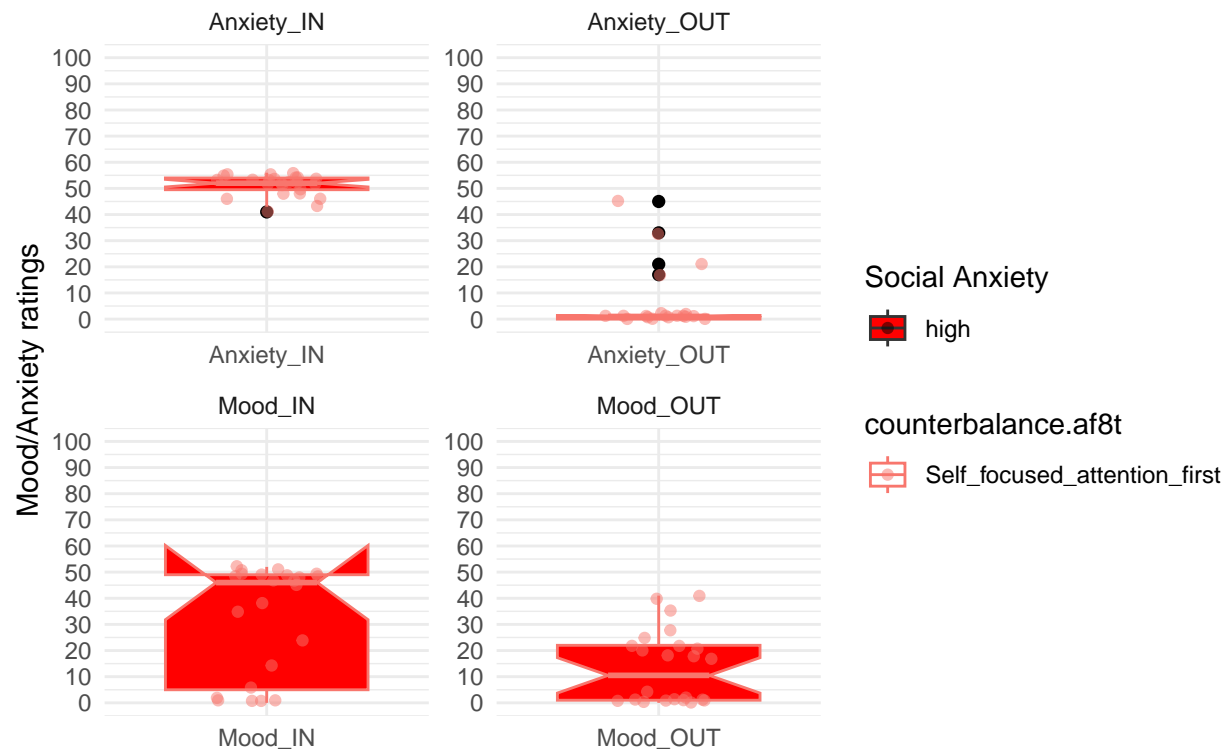
SUPPRF09275



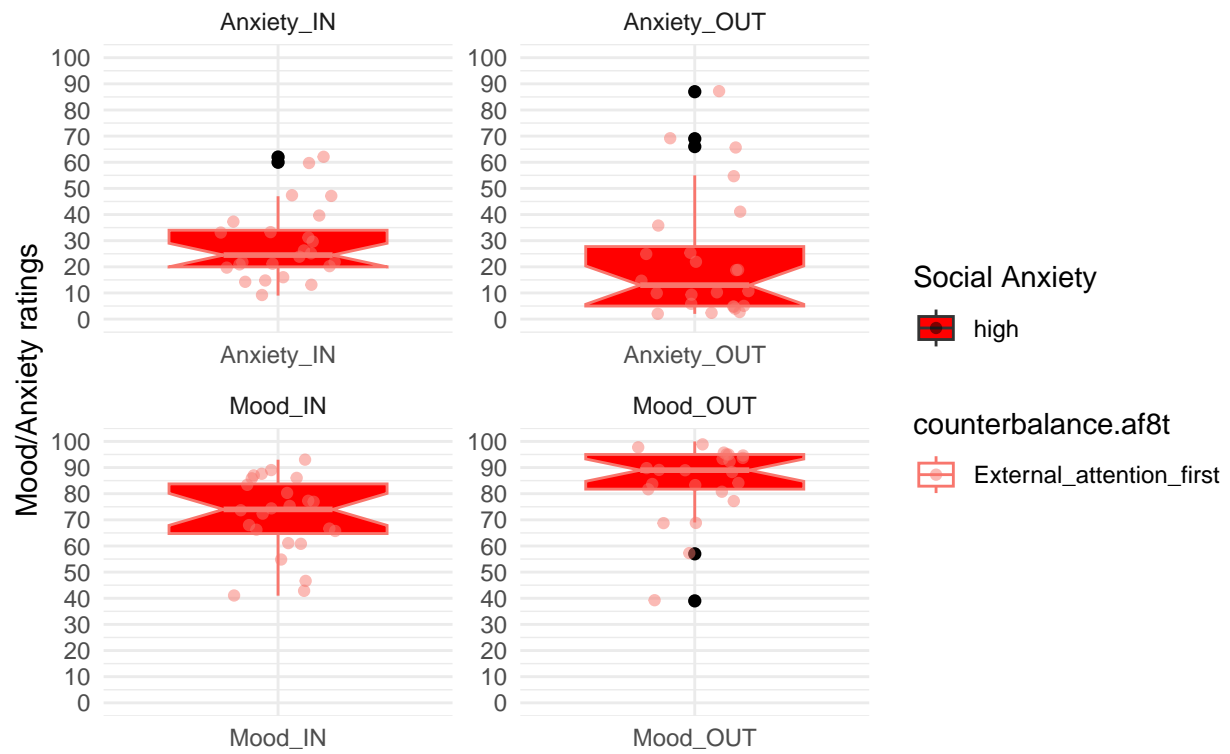
# Anxiety and Mood ratings for subject: SUPPRF14695



# Anxiety and Mood ratings for subject: SUPPRF15646

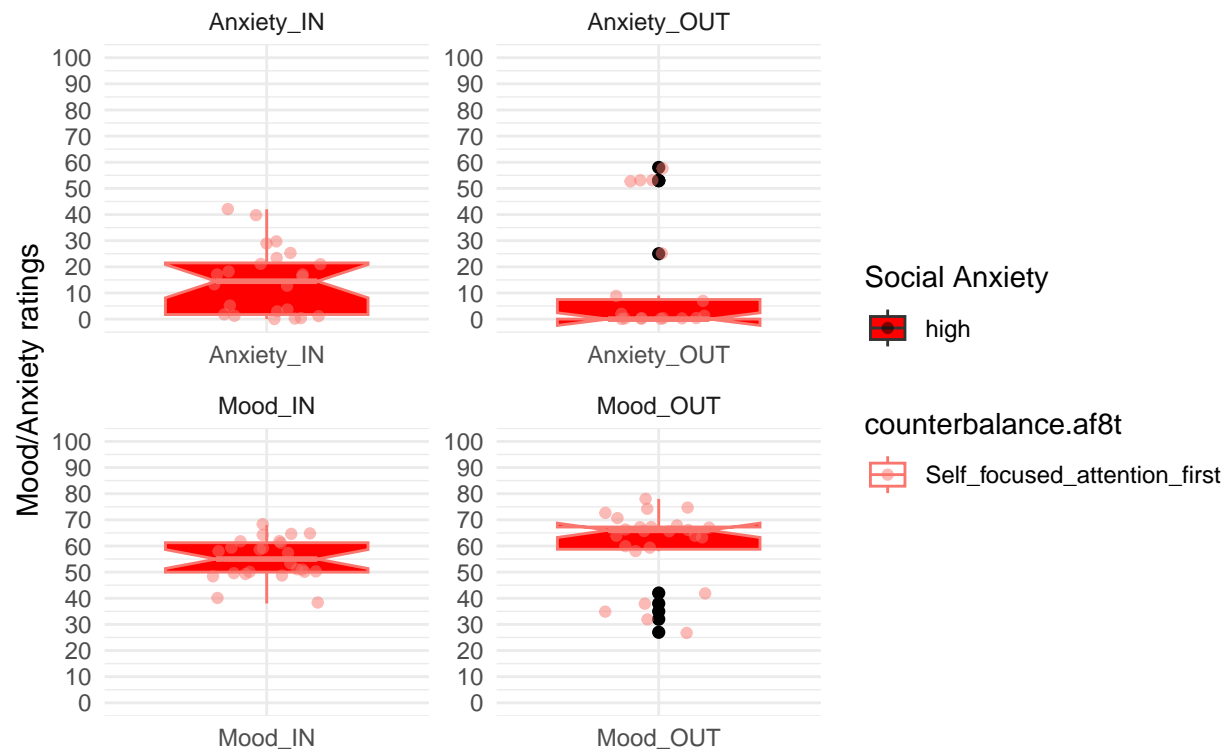


## Anxiety and Mood ratings for subject: SUPPRF16834

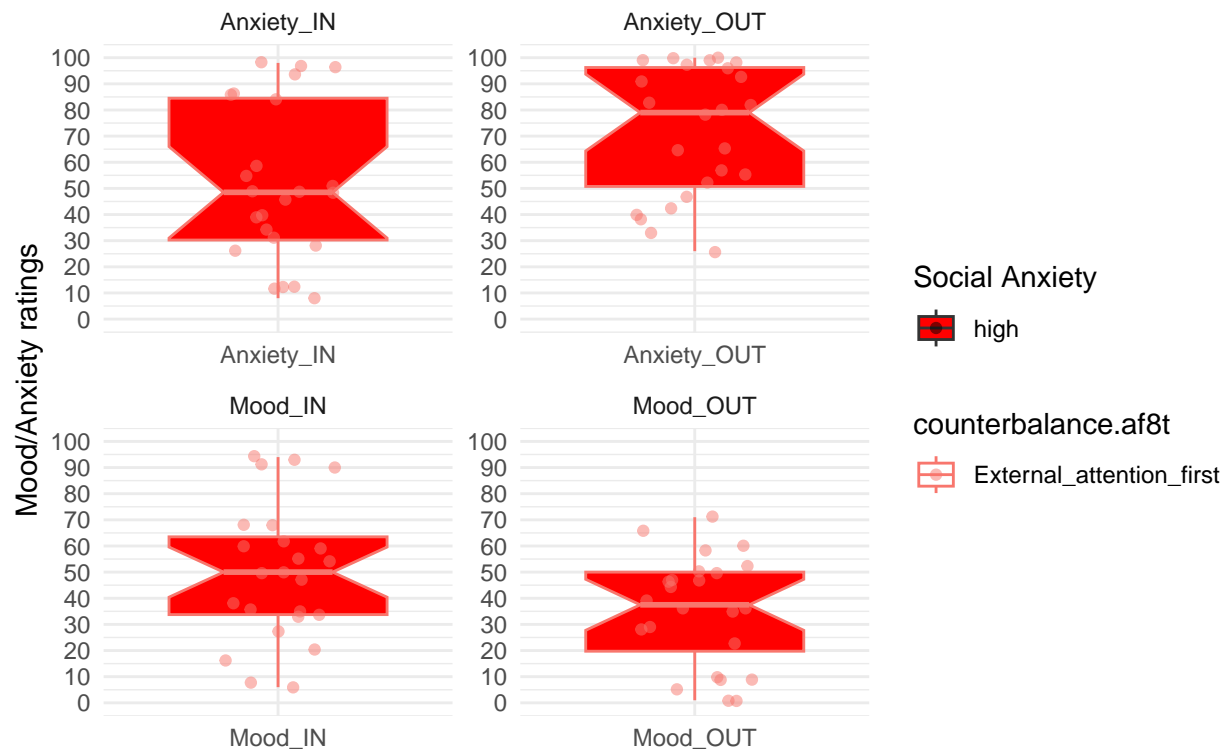




## Anxiety and Mood ratings for subject: SUPPRF18856



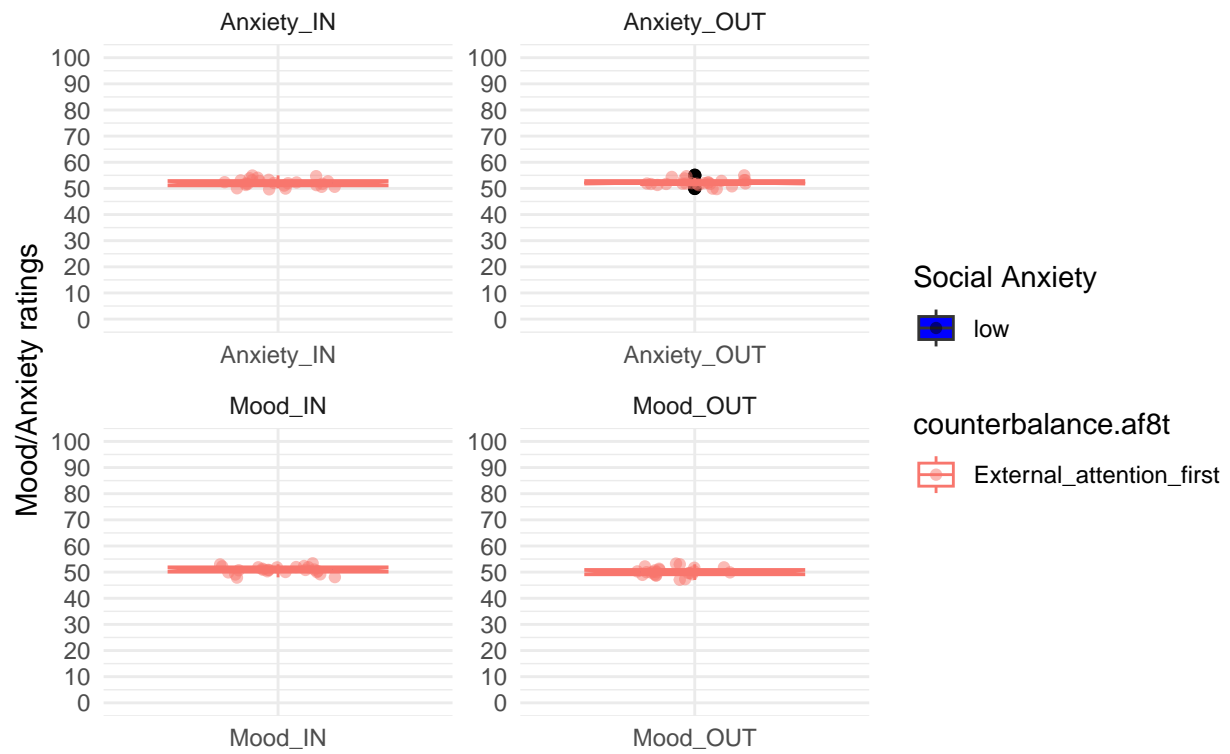
## Anxiety and Mood ratings for subject: SUPPRF21062



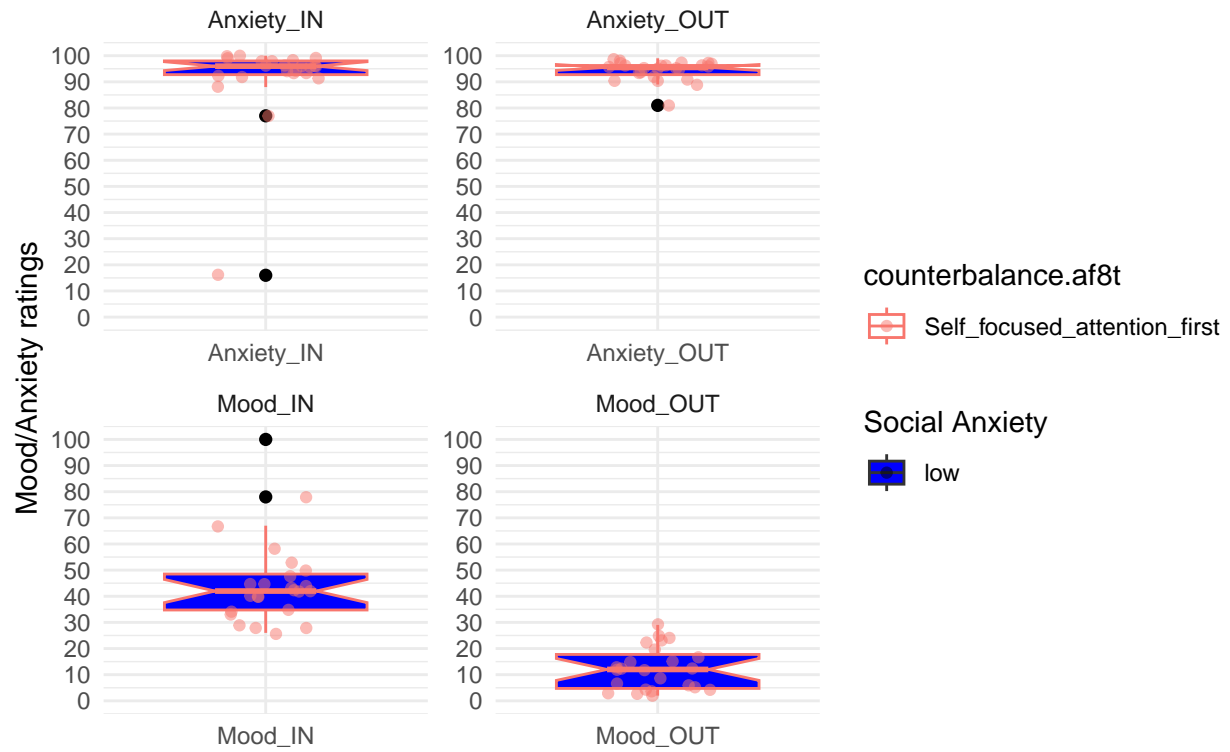
## Anxiety and Mood ratings for subject: SUPPRF21120



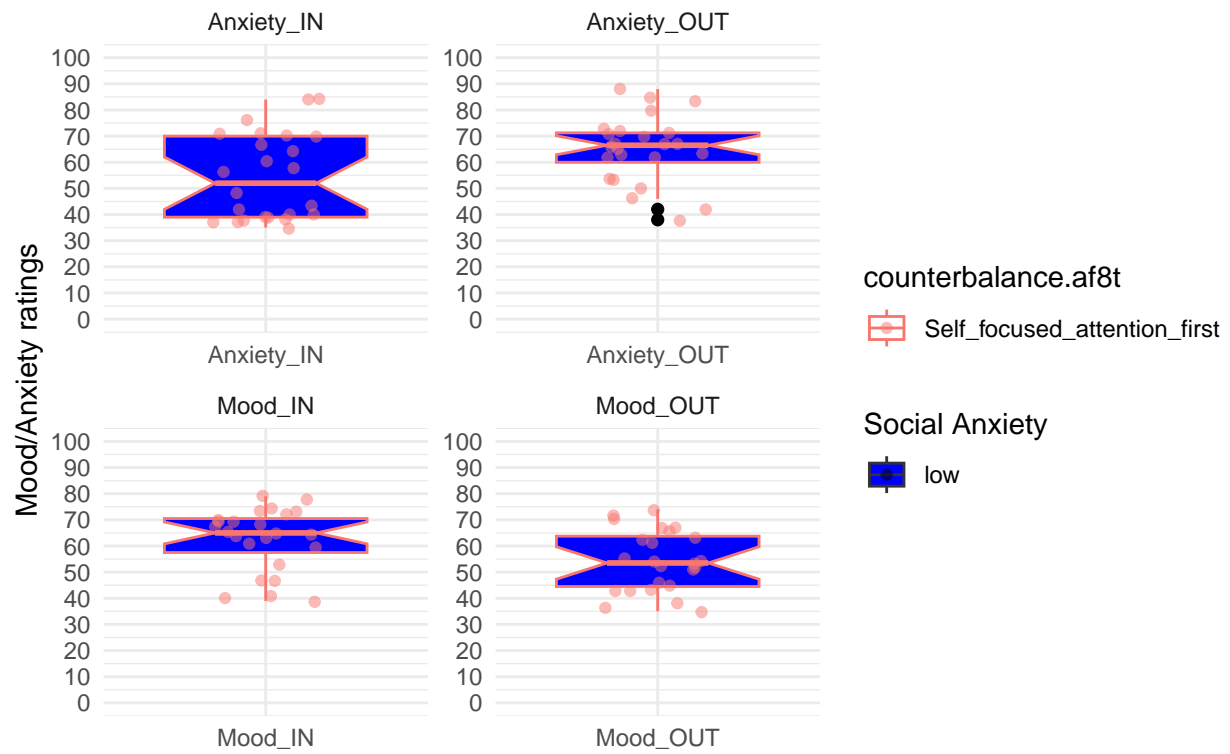
Anxiety and Mood ratings for subject: SUPPRF23580



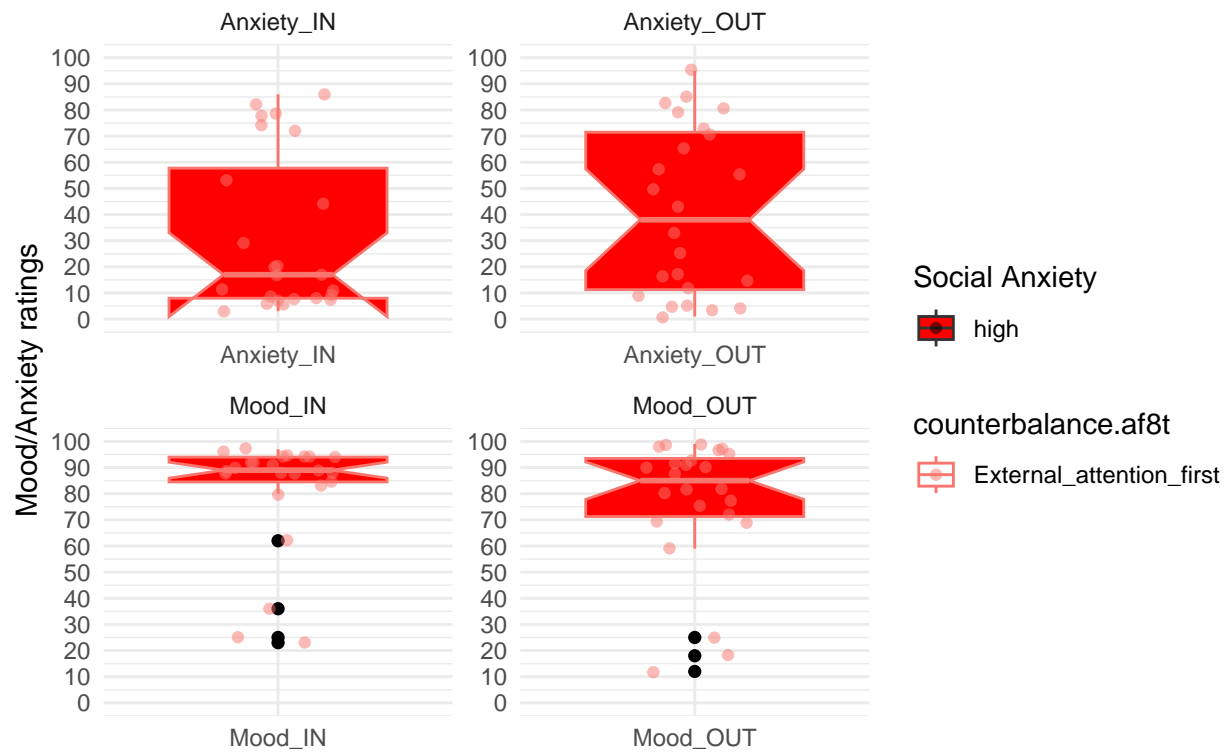
## Anxiety and Mood ratings for subject: SUPPRF23841



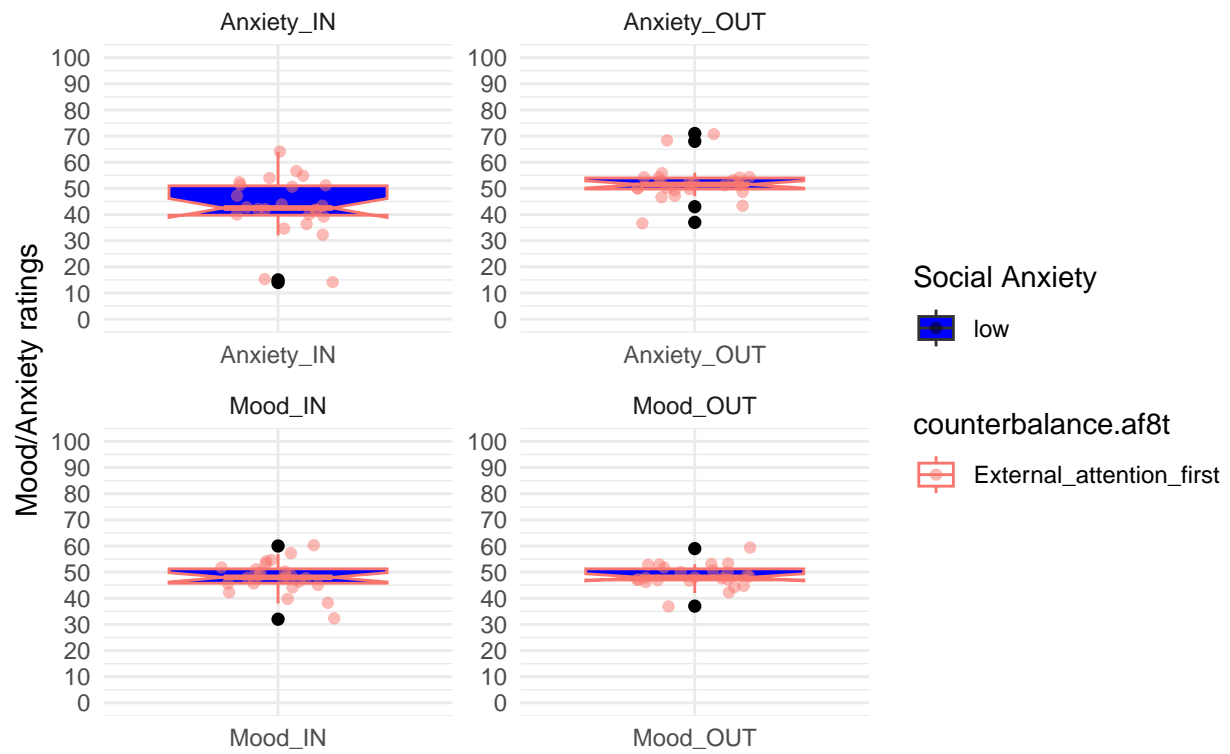
# Anxiety and Mood ratings for subject: SUPPRF24527



## Anxiety and Mood ratings for subject: SUPPRF25764



## Anxiety and Mood ratings for subject: SUPPRF28854

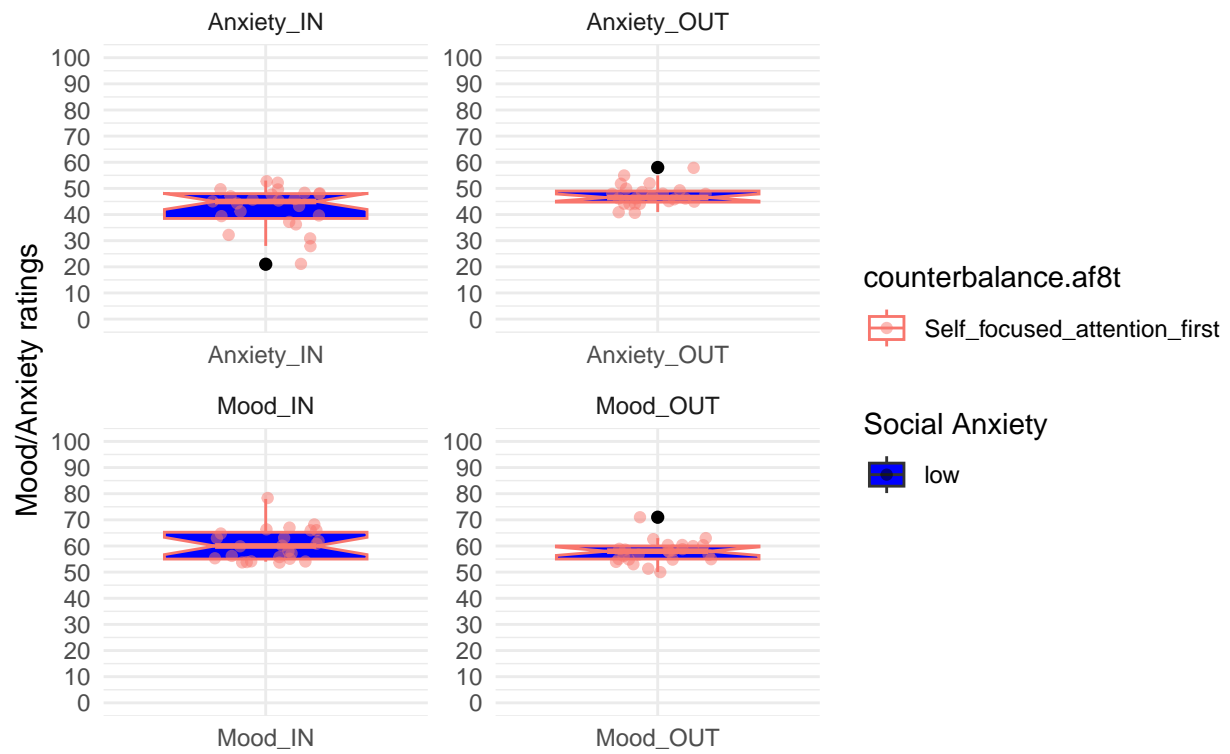




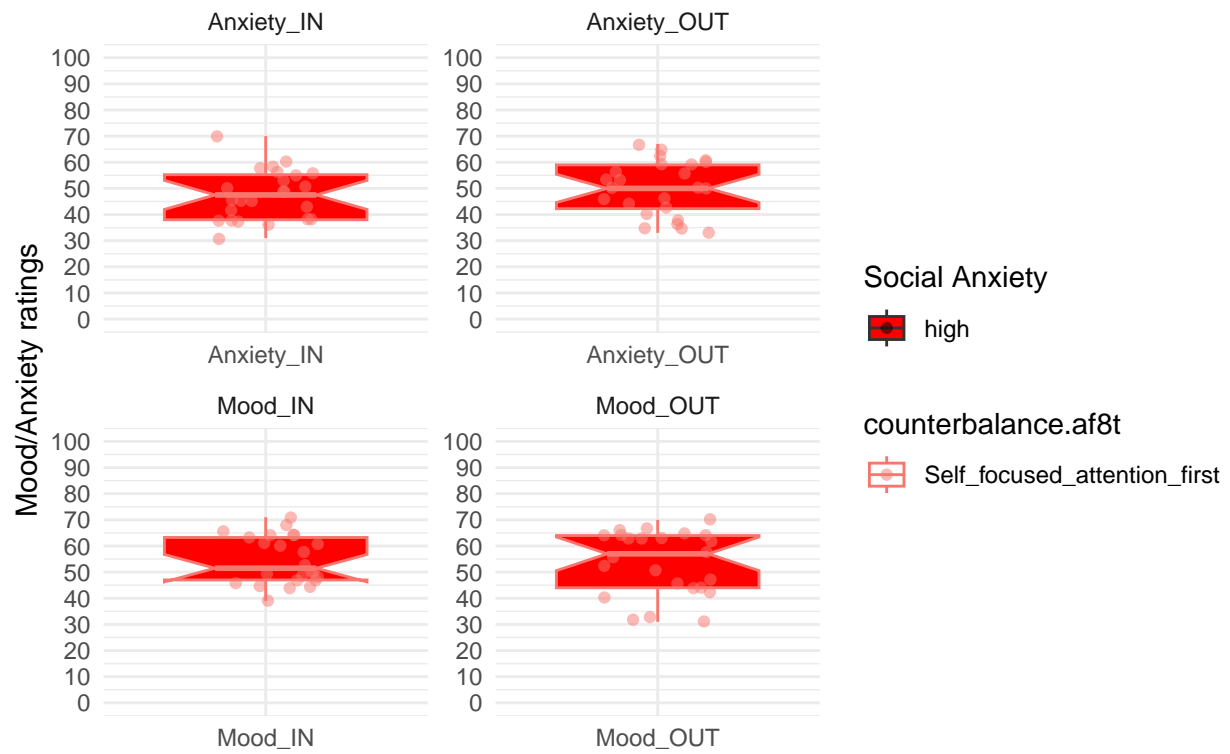
Anxiety and Mood ratings for subject: SUPPRF30141



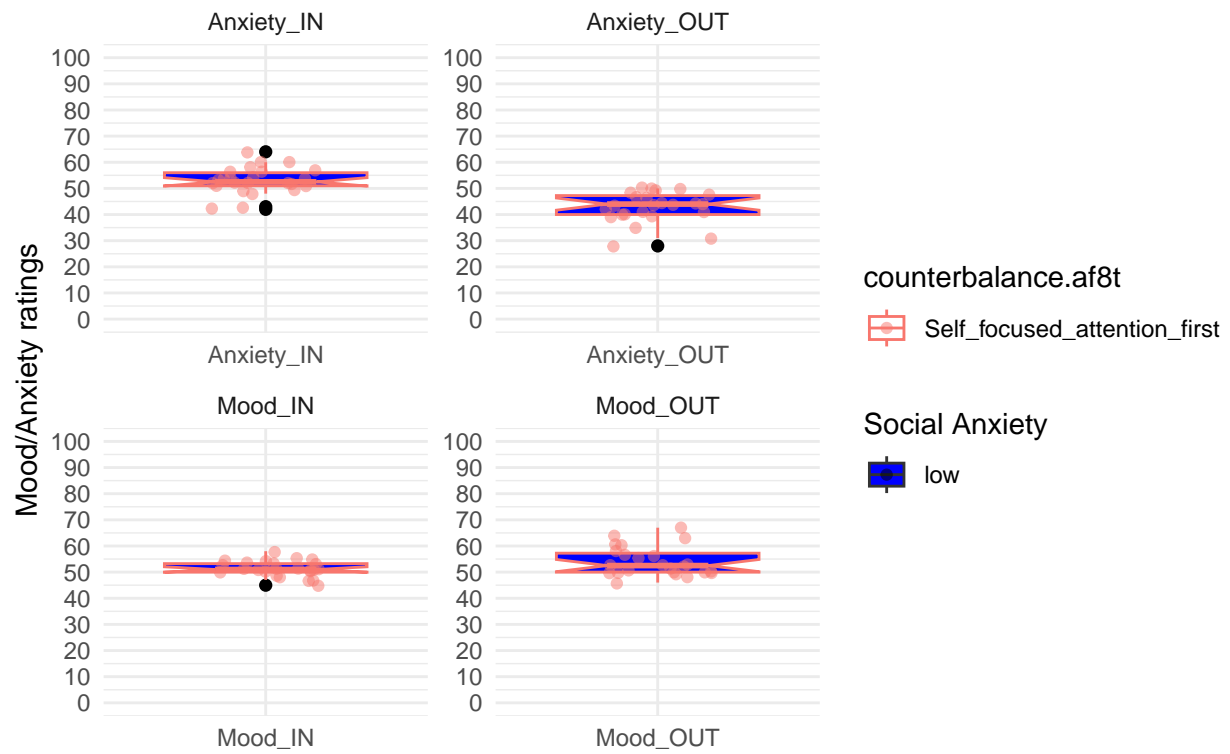
## Anxiety and Mood ratings for subject: SUPPRF30509



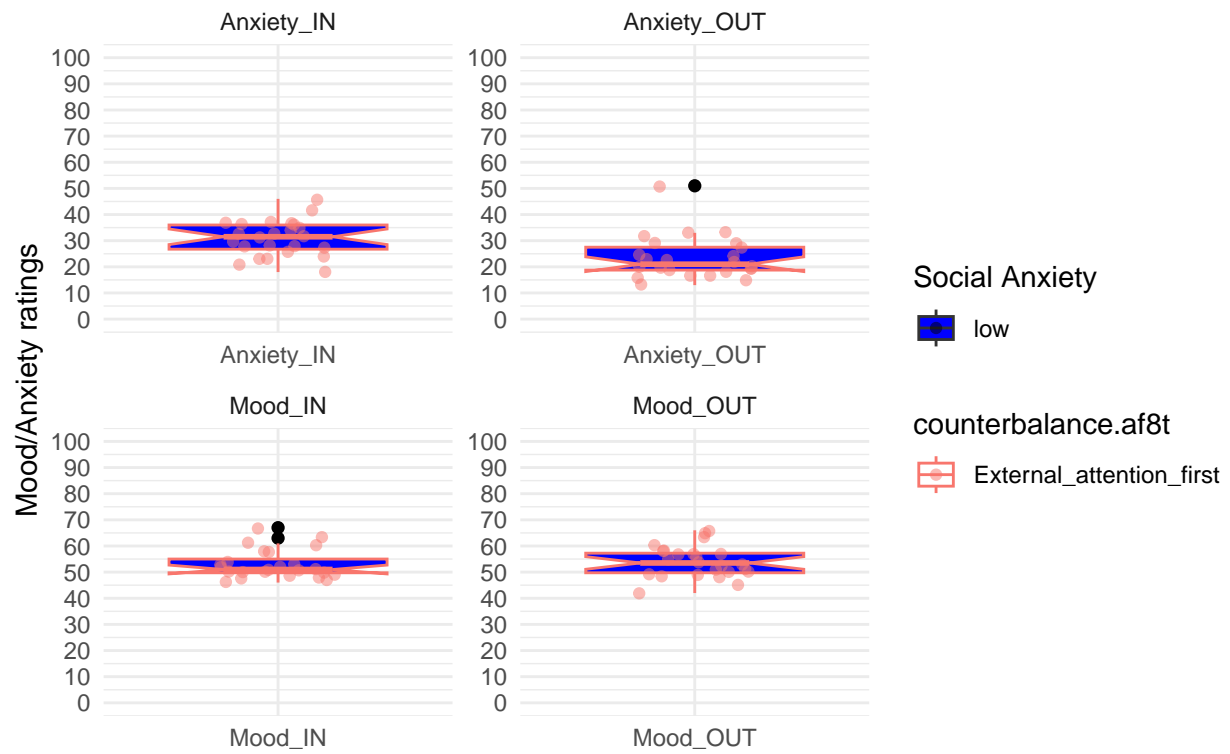
## Anxiety and Mood ratings for subject: SUPPRF32911



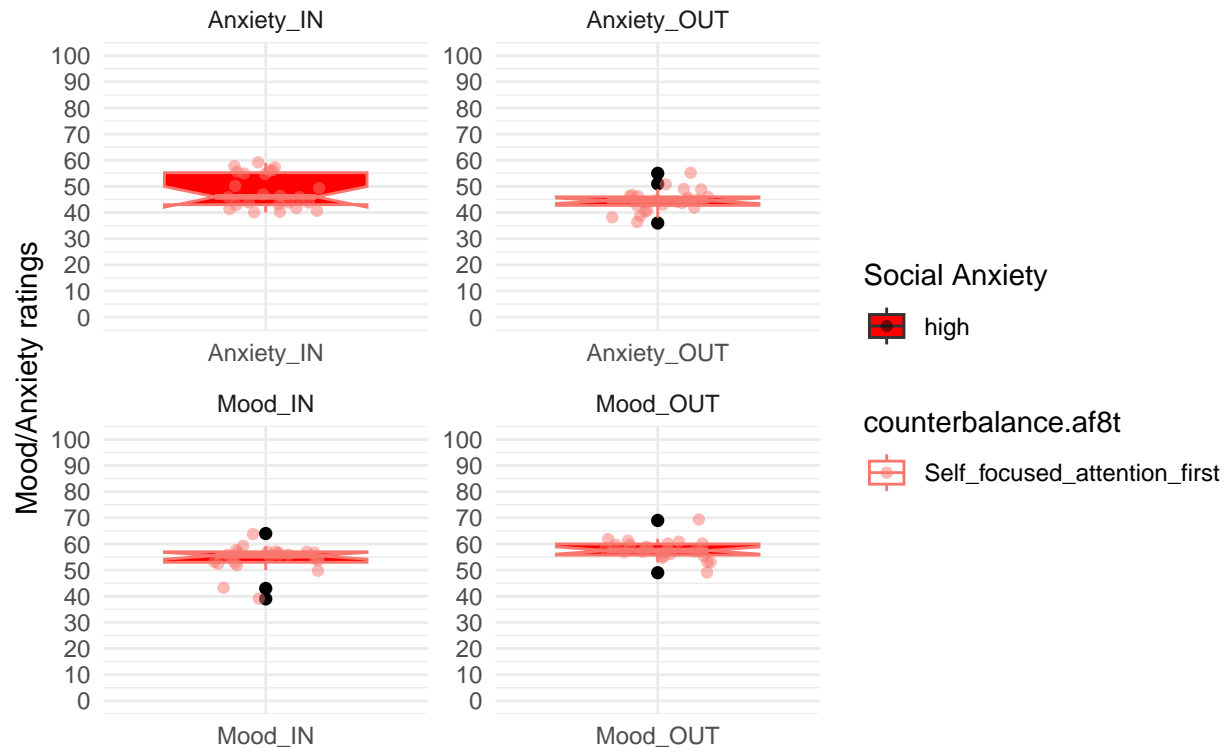
## Anxiety and Mood ratings for subject: SUPPRF33974



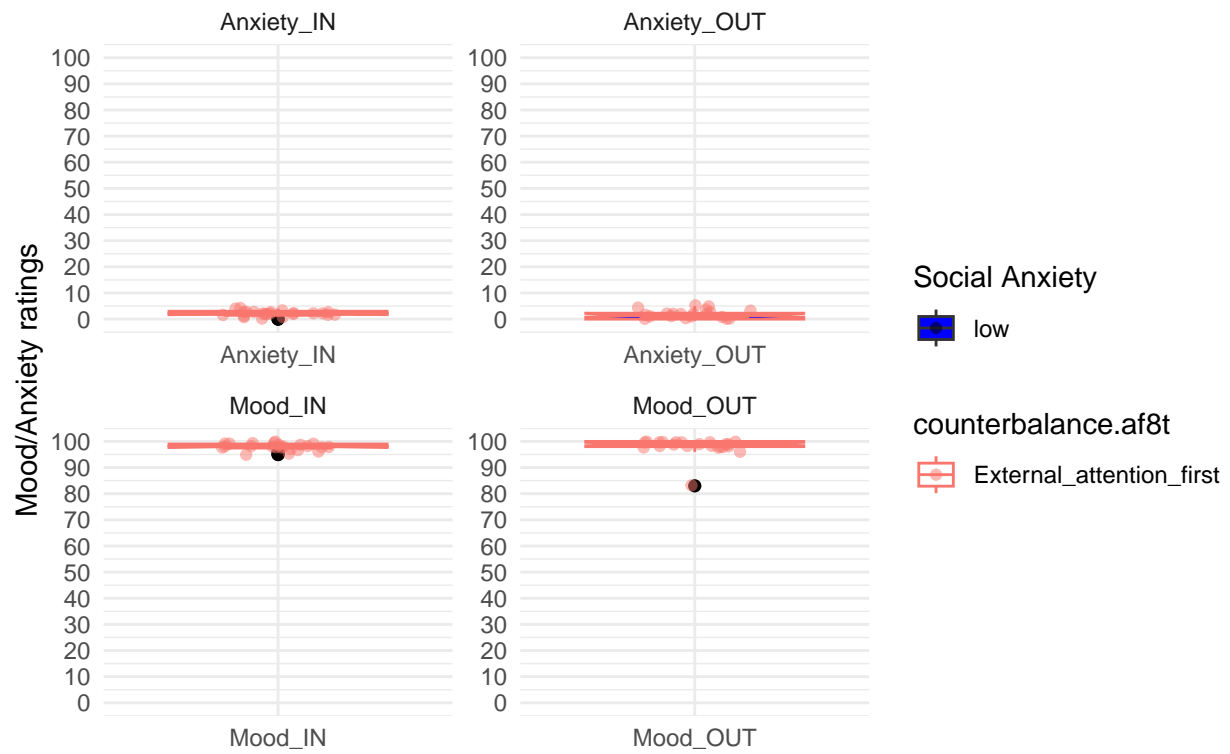
## Anxiety and Mood ratings for subject: SUPPRF37742



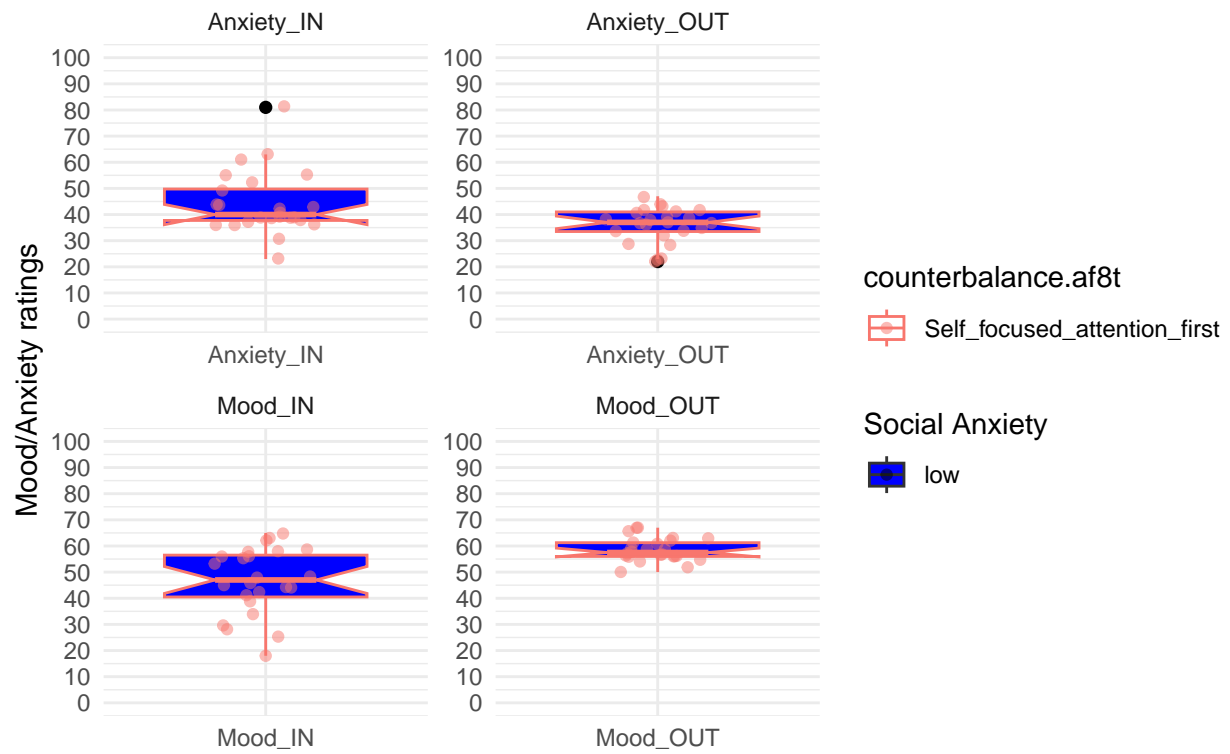
Anxiety and Mood ratings for subject: SUPPRF40441



Anxiety and Mood ratings for subject: SUPPRF41927

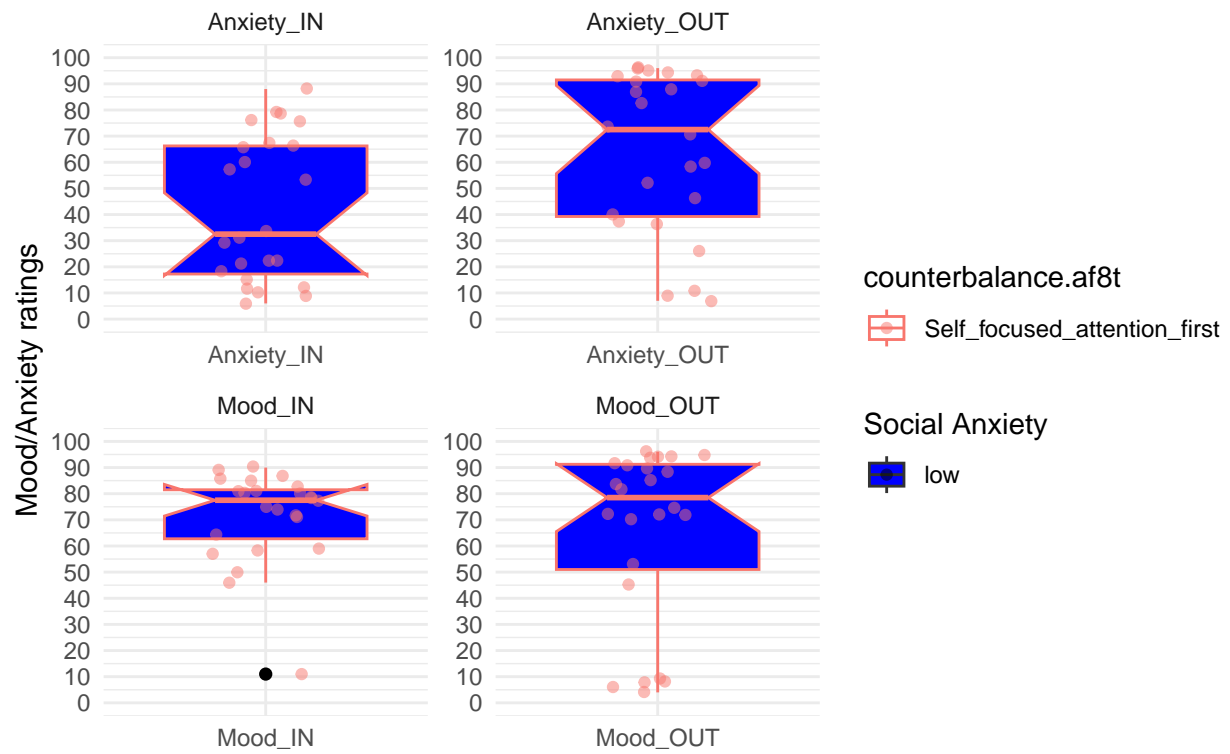


## Anxiety and Mood ratings for subject: SUPPRF42239





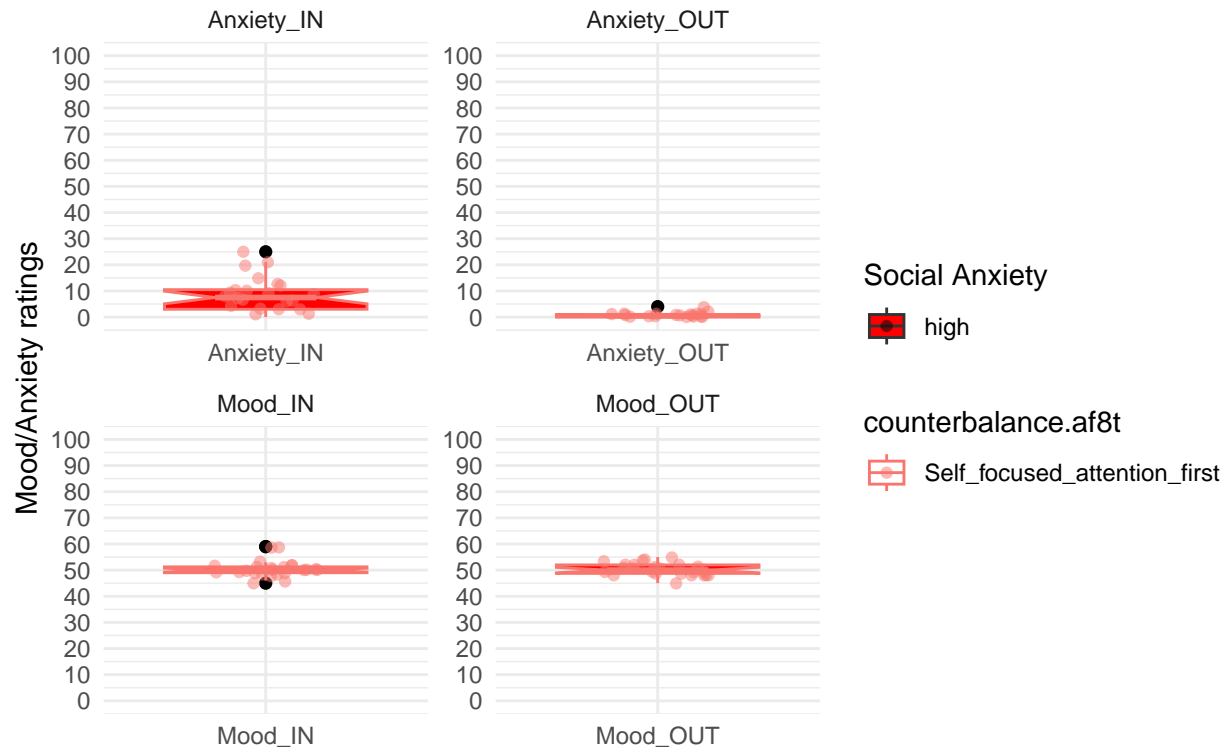
## Anxiety and Mood ratings for subject: SUPPRF45504



## Anxiety and Mood ratings for subject: SUPPRF49764



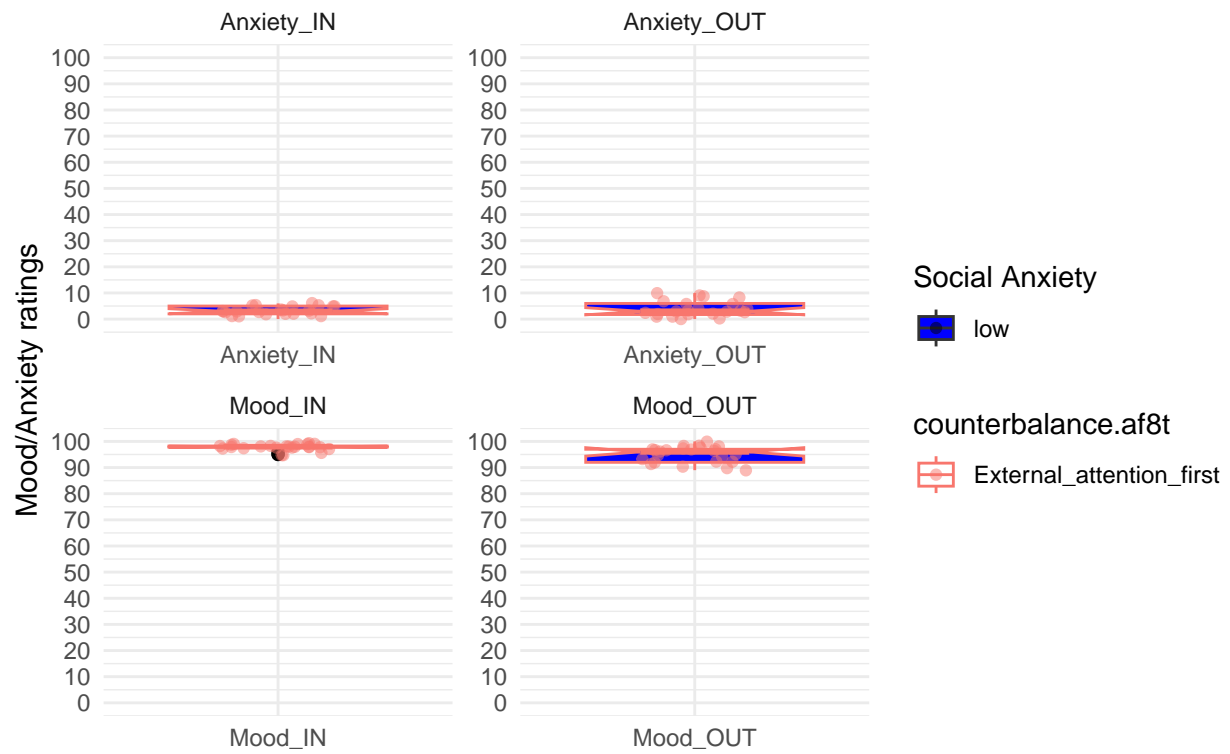
Anxiety and Mood ratings for subject: SUPPRF51148



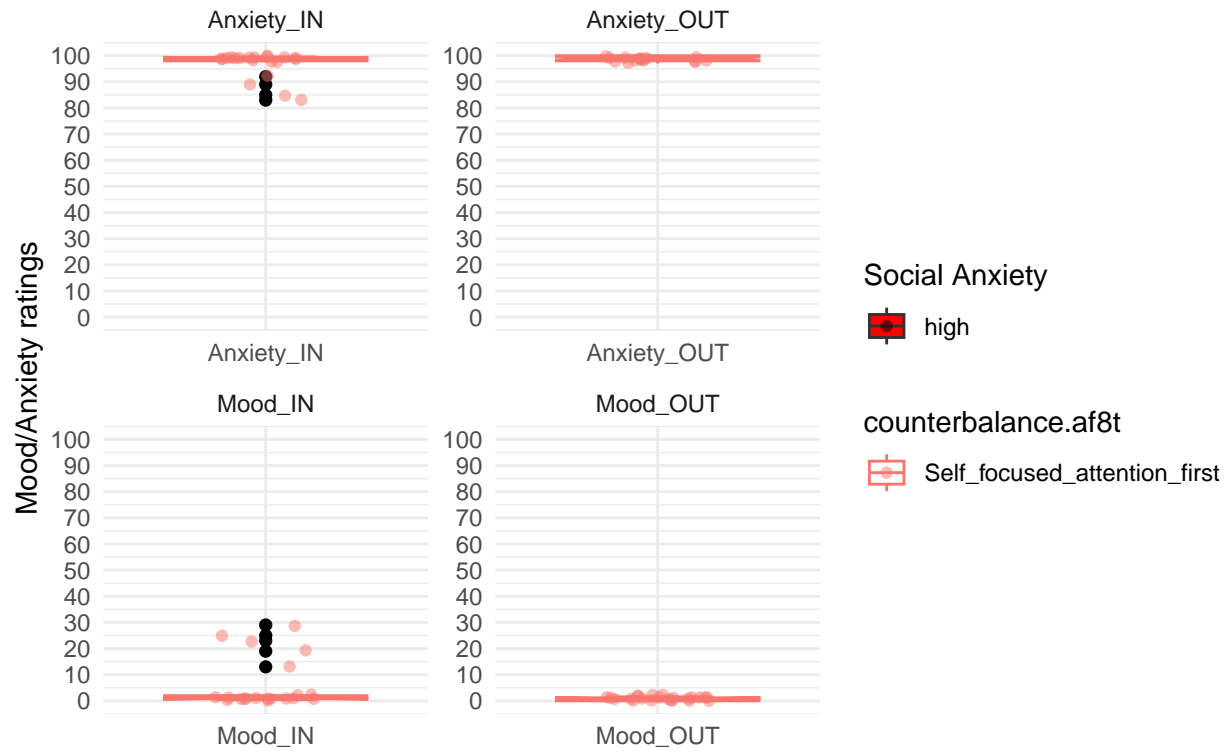
## Anxiety and Mood ratings for subject: SUPPRF51859



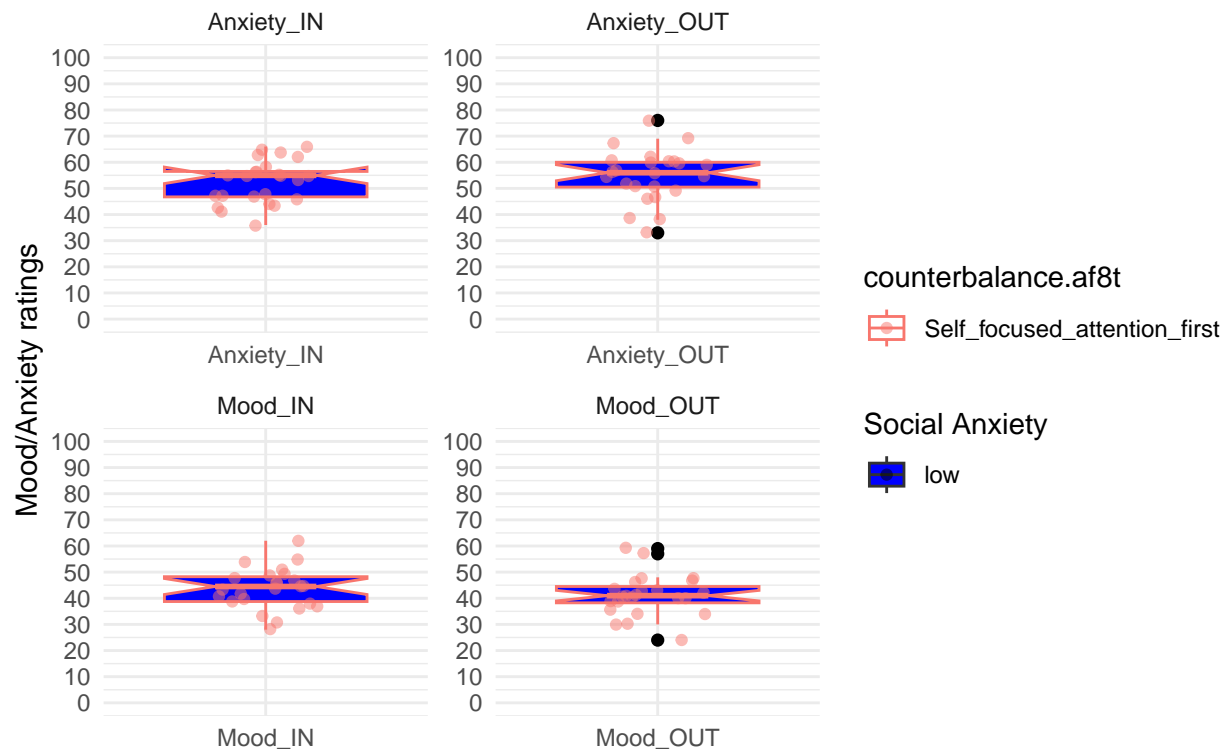
Anxiety and Mood ratings for subject: SUPPRF61954



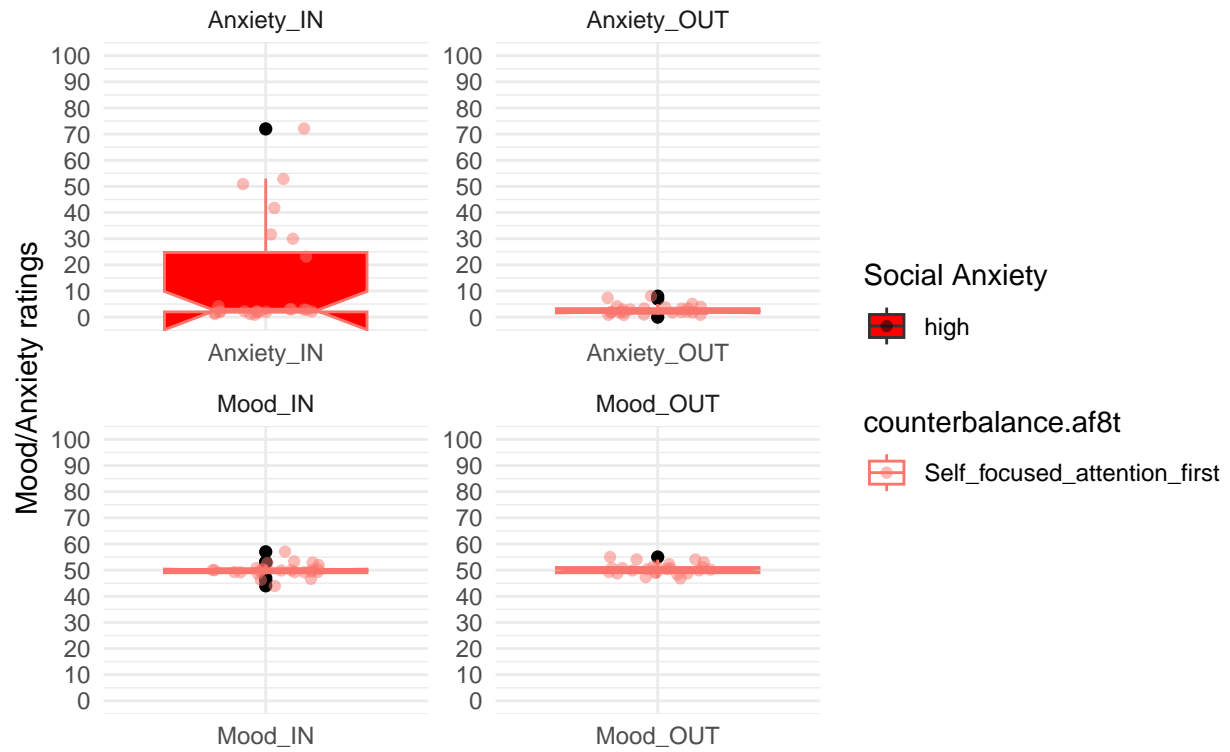
Anxiety and Mood ratings for subject: SUPPRF62274



## Anxiety and Mood ratings for subject: SUPPRF62643

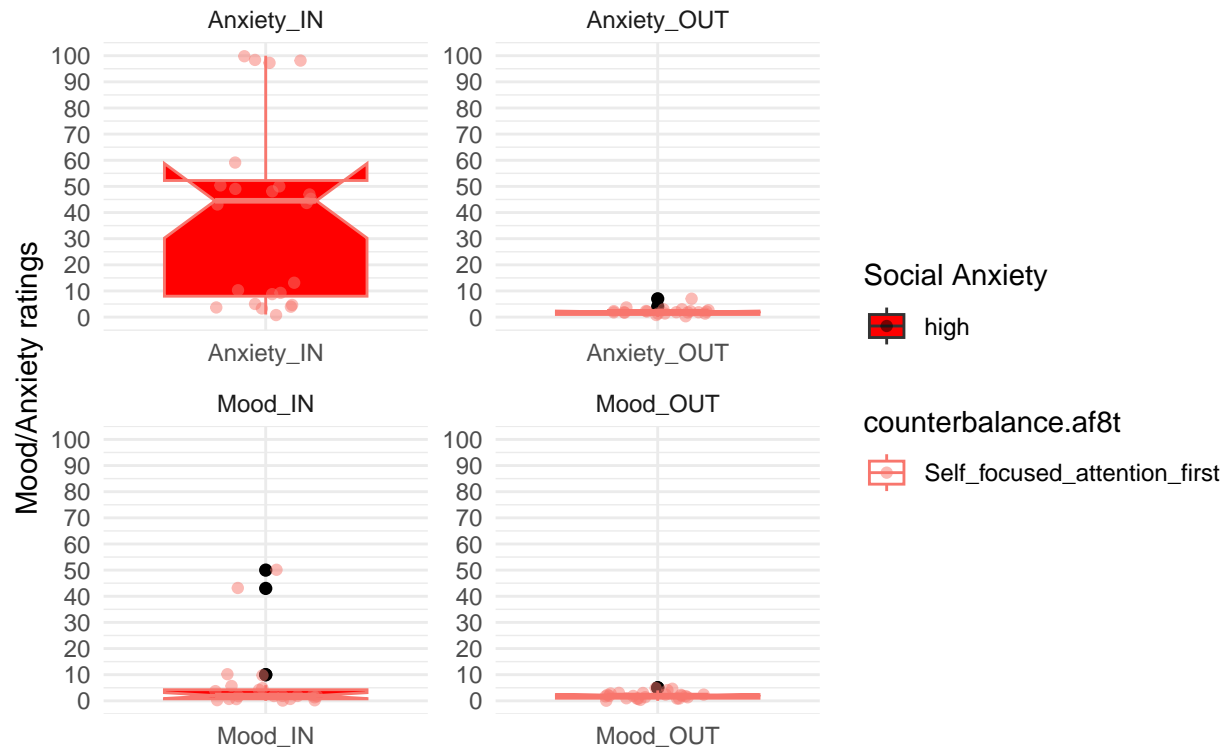


Anxiety and Mood ratings for subject: SUPPRF64663

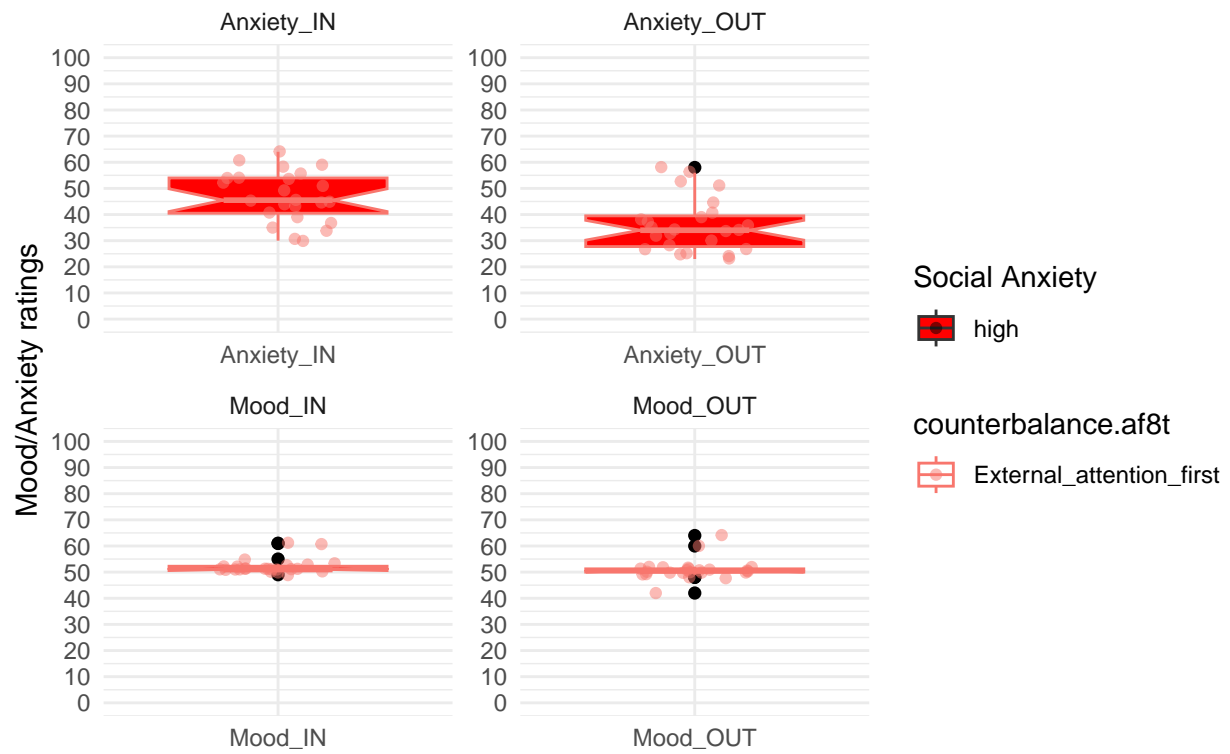




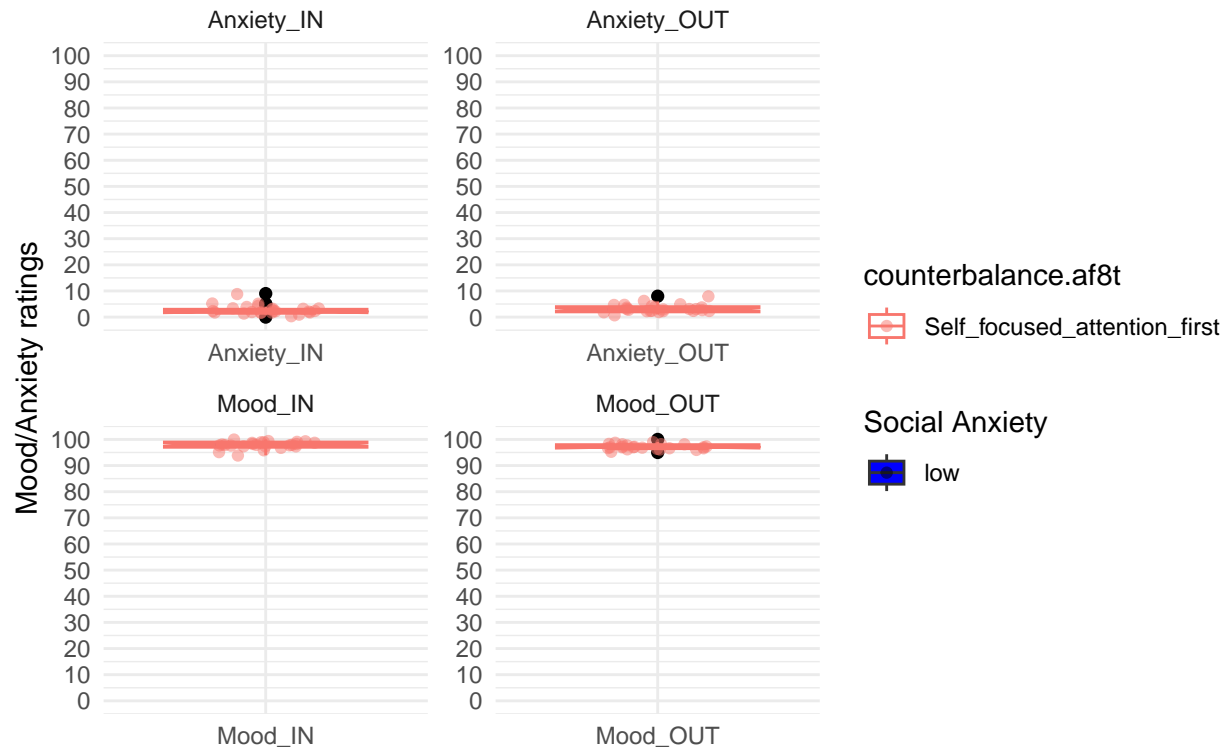
# Anxiety and Mood ratings for subject: SUPPRF66414



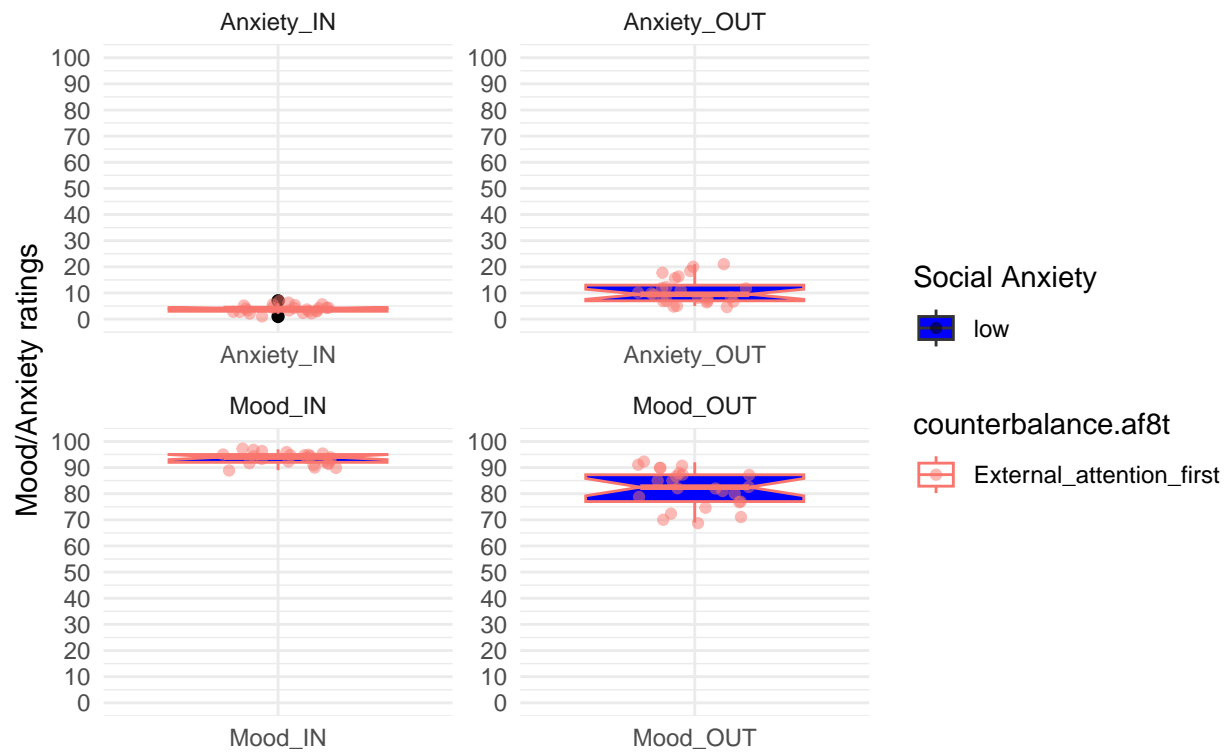
## Anxiety and Mood ratings for subject: SUPPRF67062



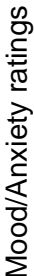
Anxiety and Mood ratings for subject: SUPPRF70678



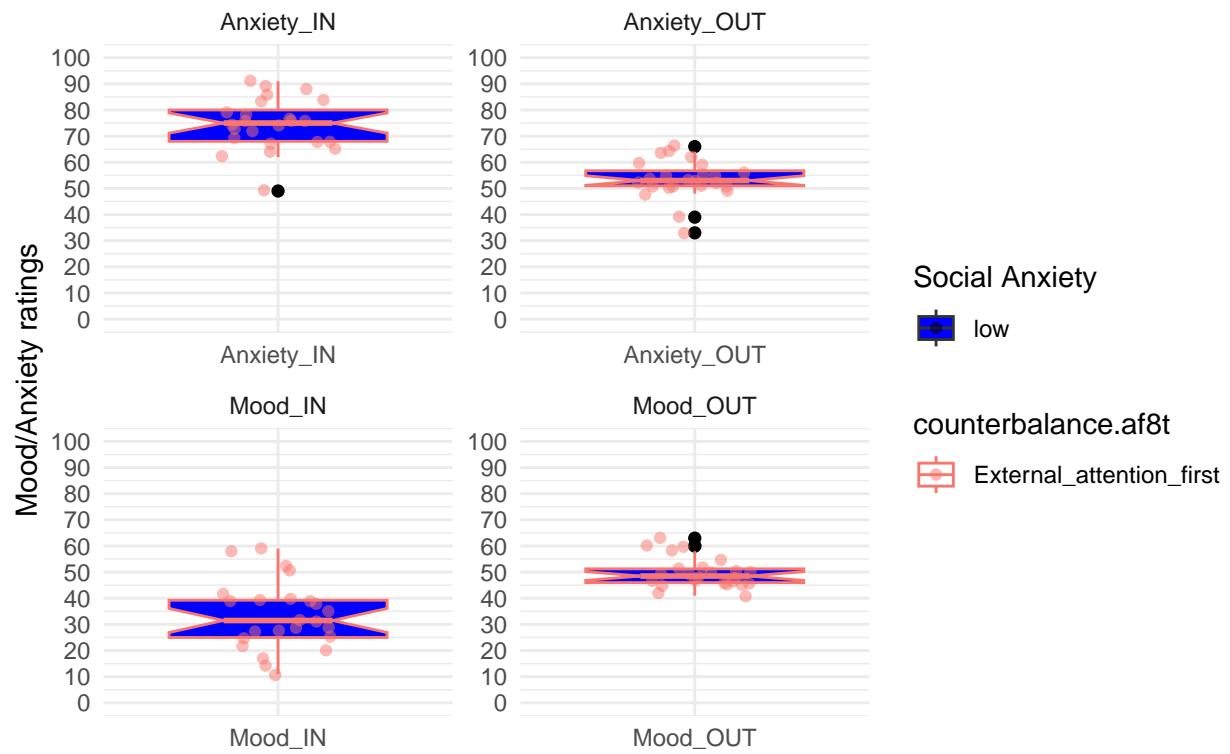
## Anxiety and Mood ratings for subject: SUPPRF70931



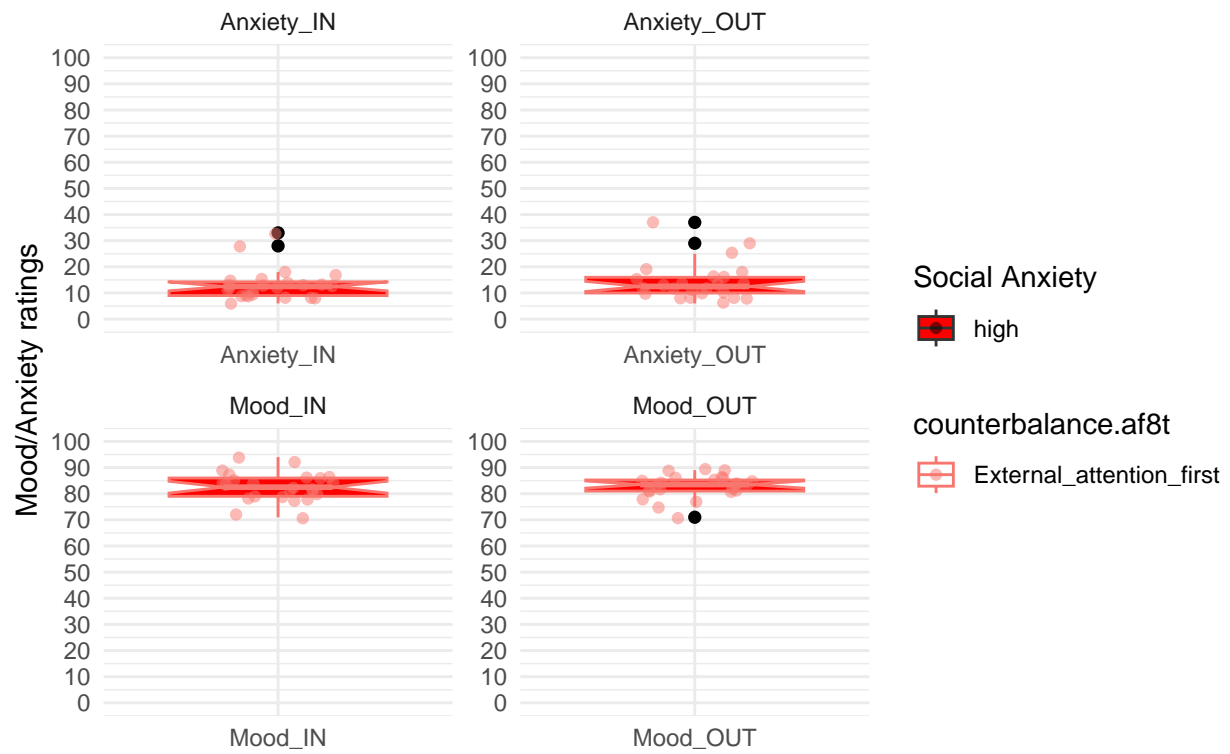
SUPPRF71127



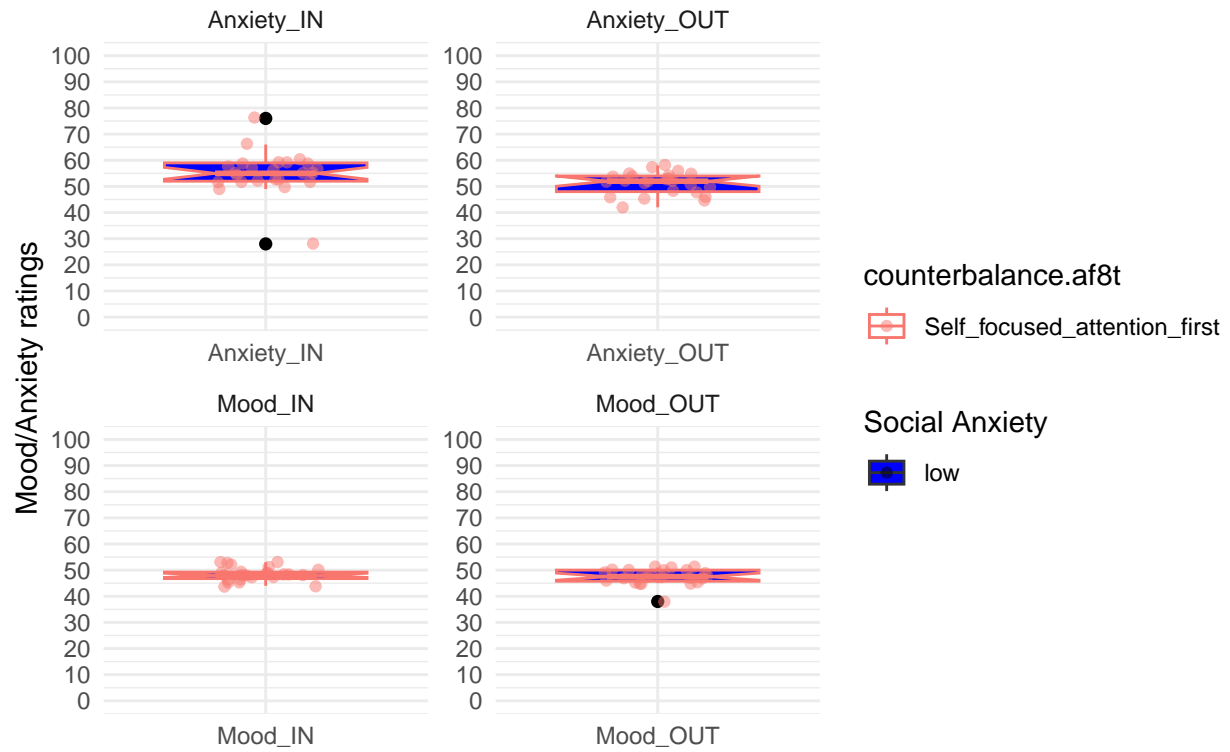
# Anxiety and Mood ratings for subject: SUPPRF71393



Anxiety and Mood ratings for subject: SUPPRF72971

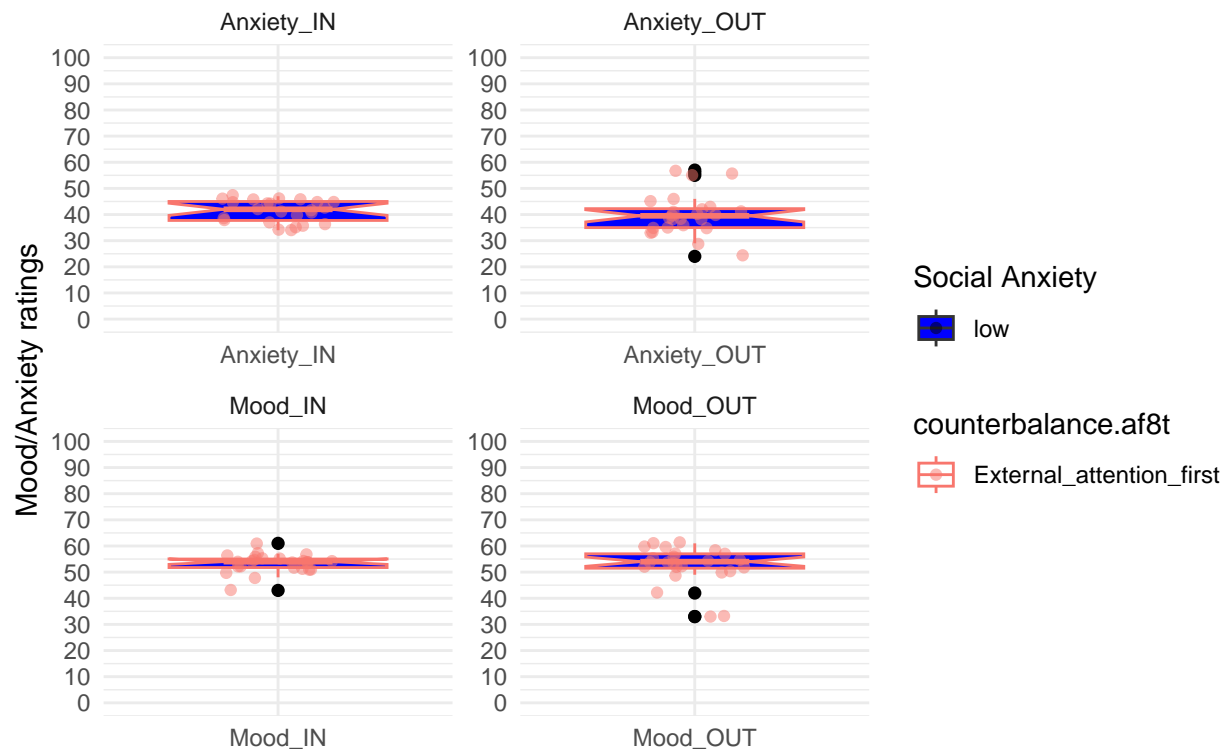


Anxiety and Mood ratings for subject: SUPPRF73458

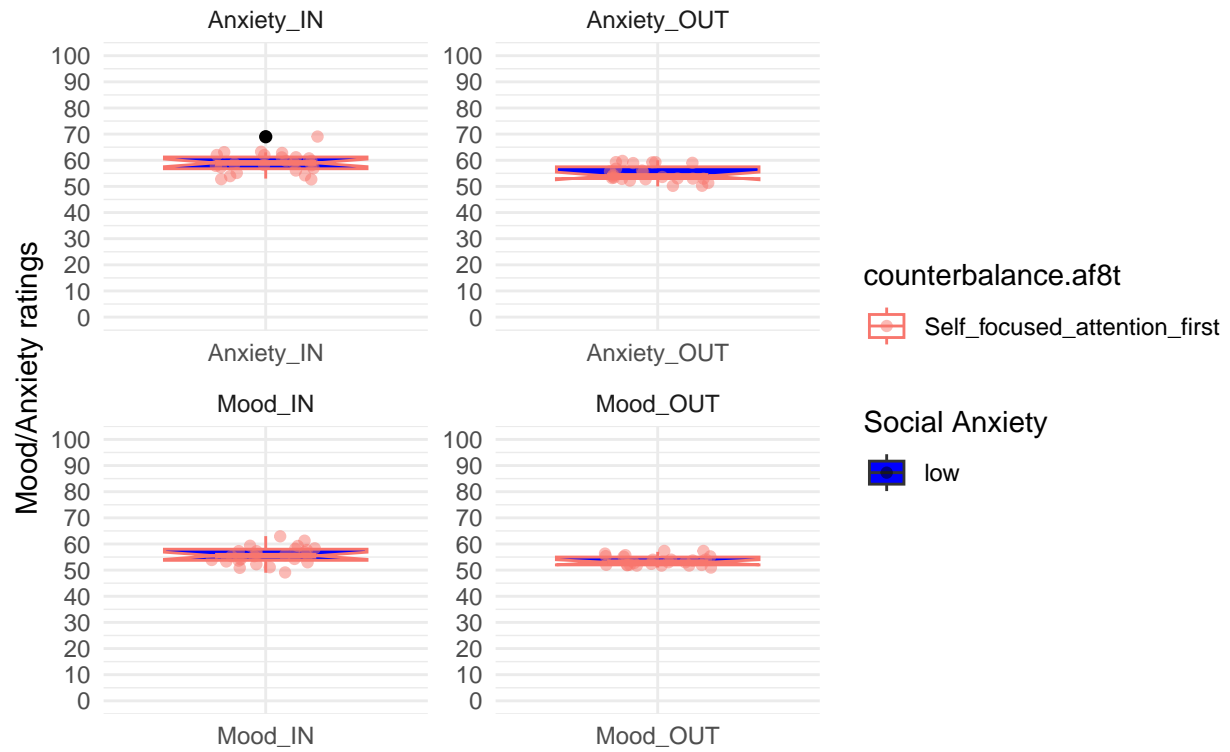




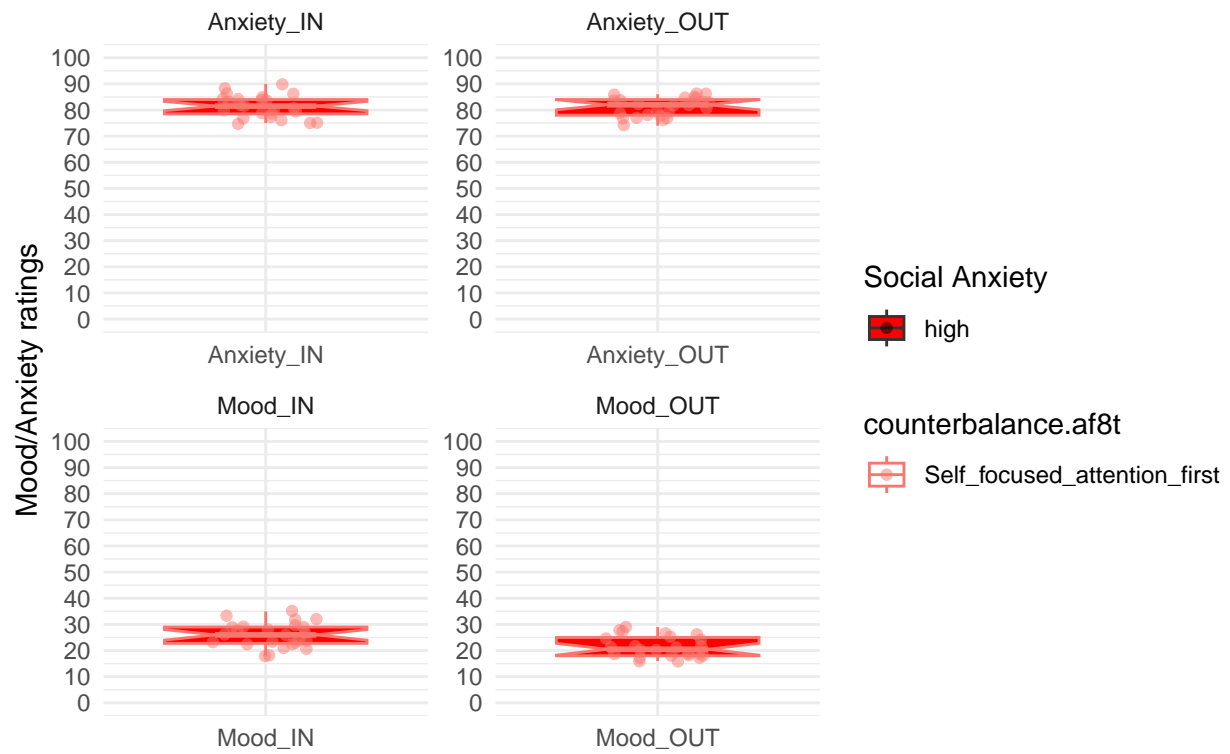
Anxiety and Mood ratings for subject: SUPPRF76142



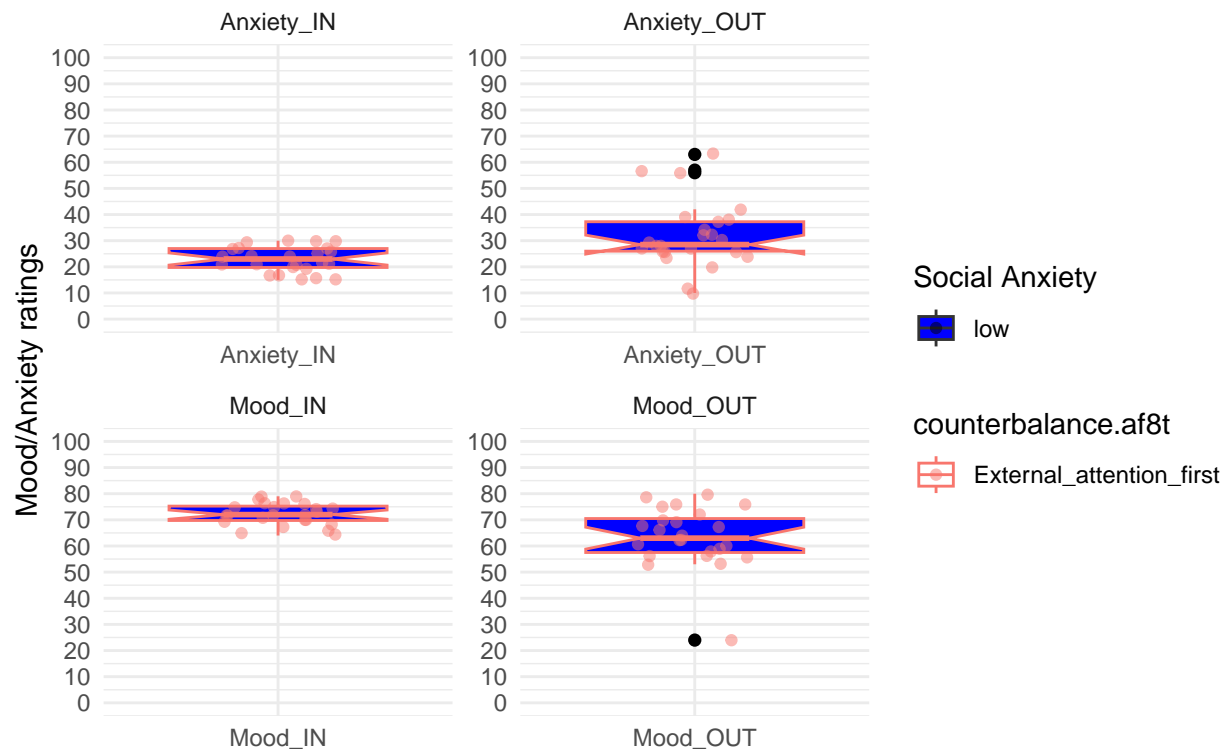
Anxiety and Mood ratings for subject: SUPPRF78779



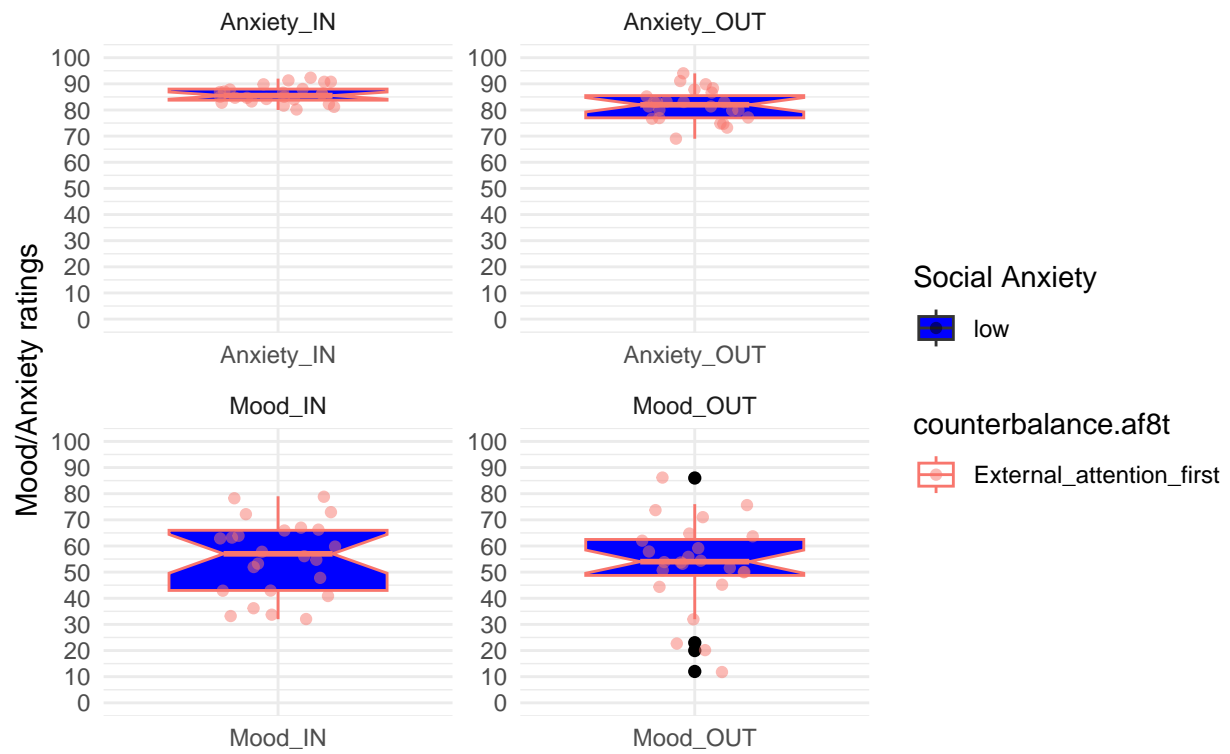
Anxiety and Mood ratings for subject: SUPPRF79308



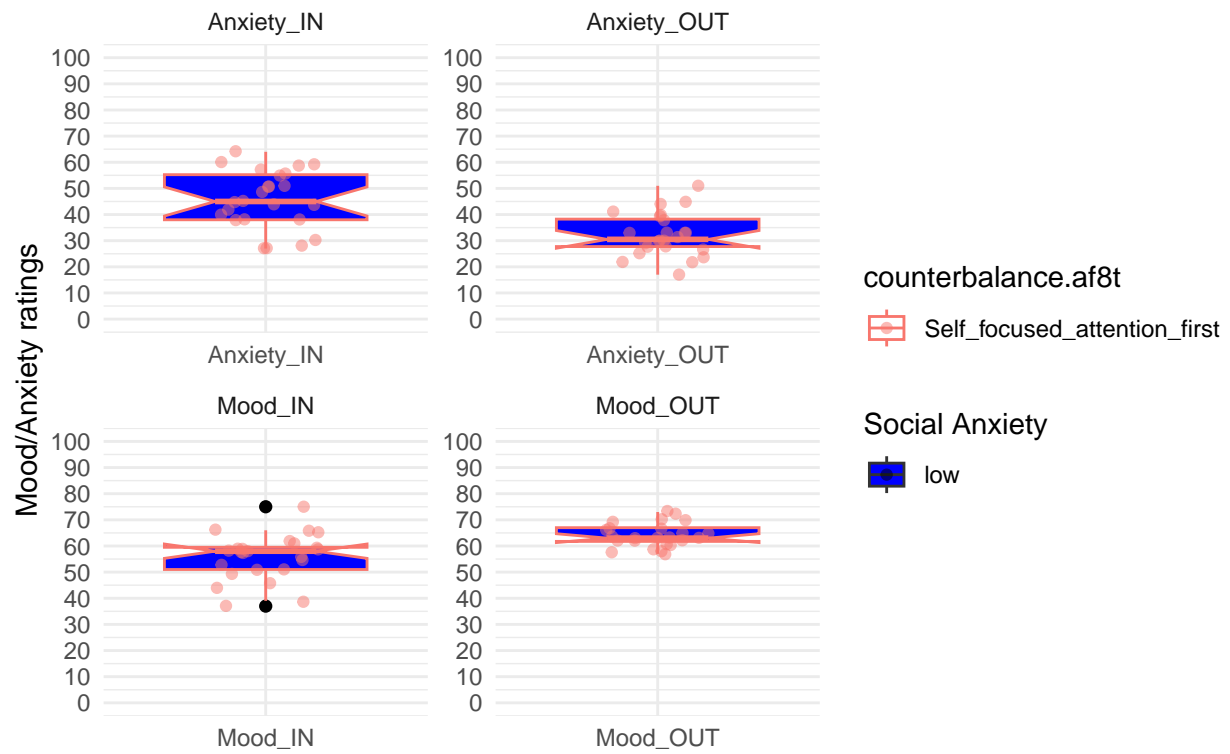
## Anxiety and Mood ratings for subject: SUPPRF80125



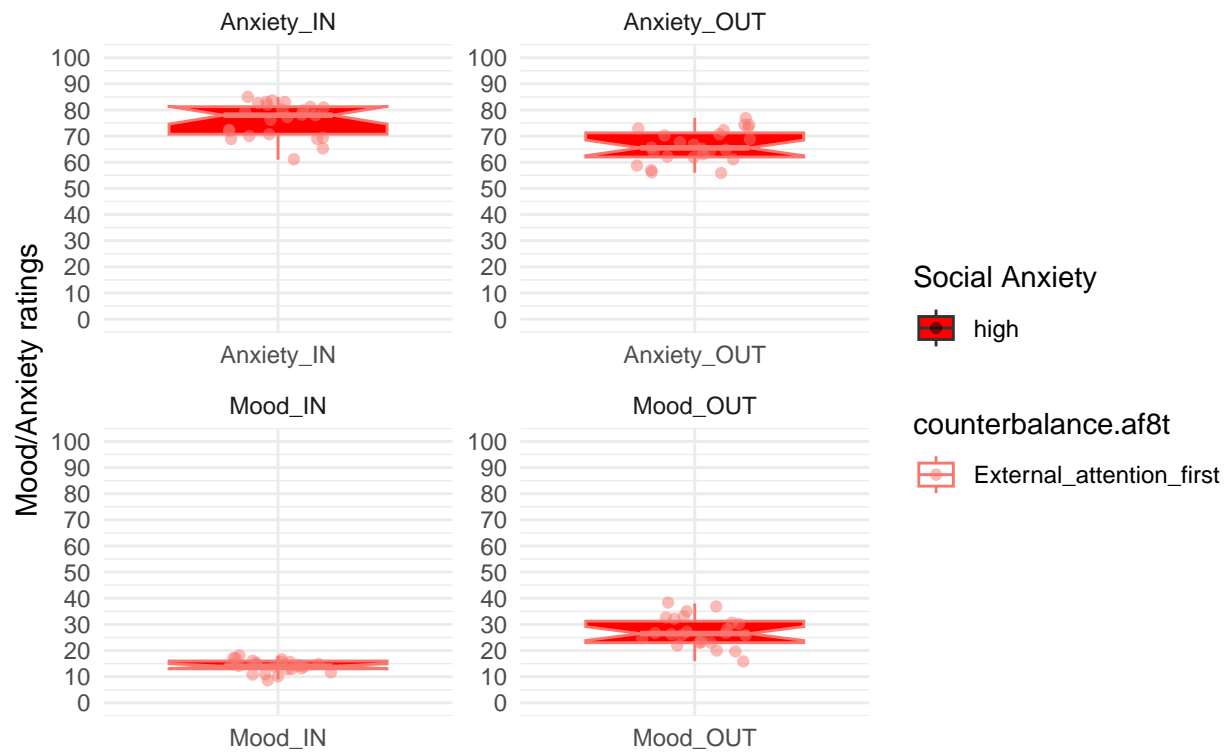
# Anxiety and Mood ratings for subject: SUPPRF85201



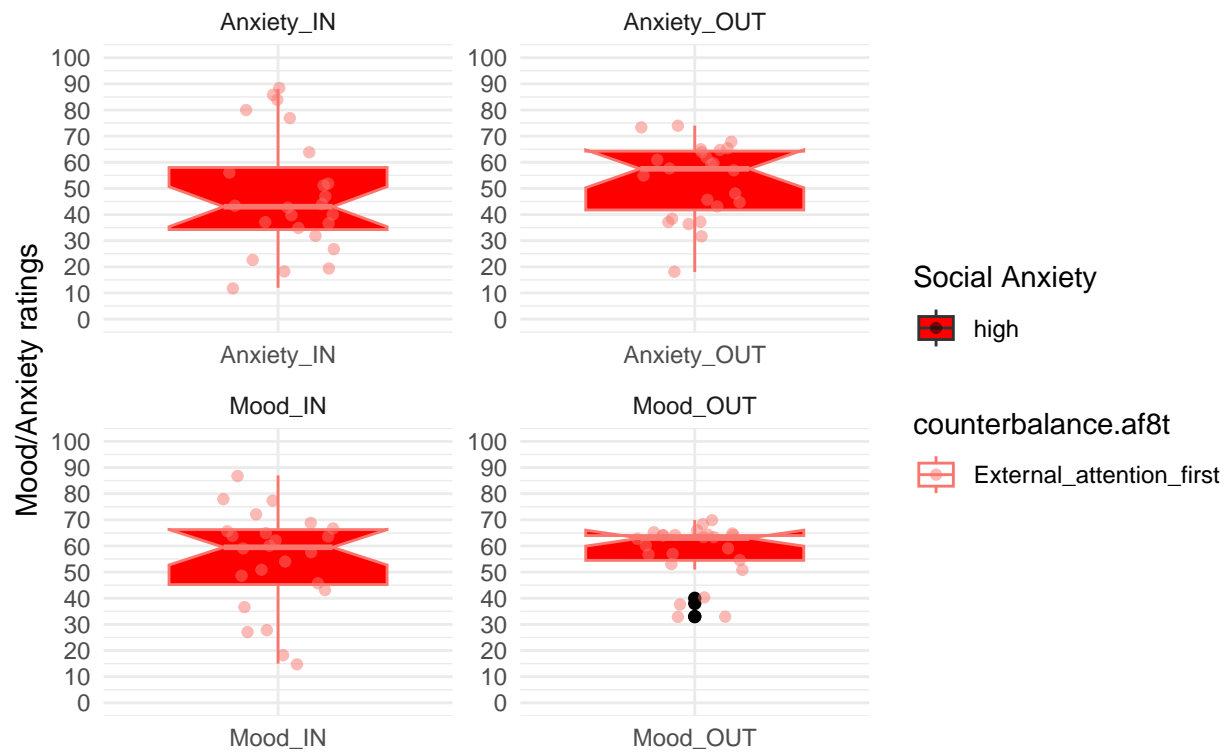
## Anxiety and Mood ratings for subject: SUPPRF85554



## Anxiety and Mood ratings for subject: SUPPRF87722

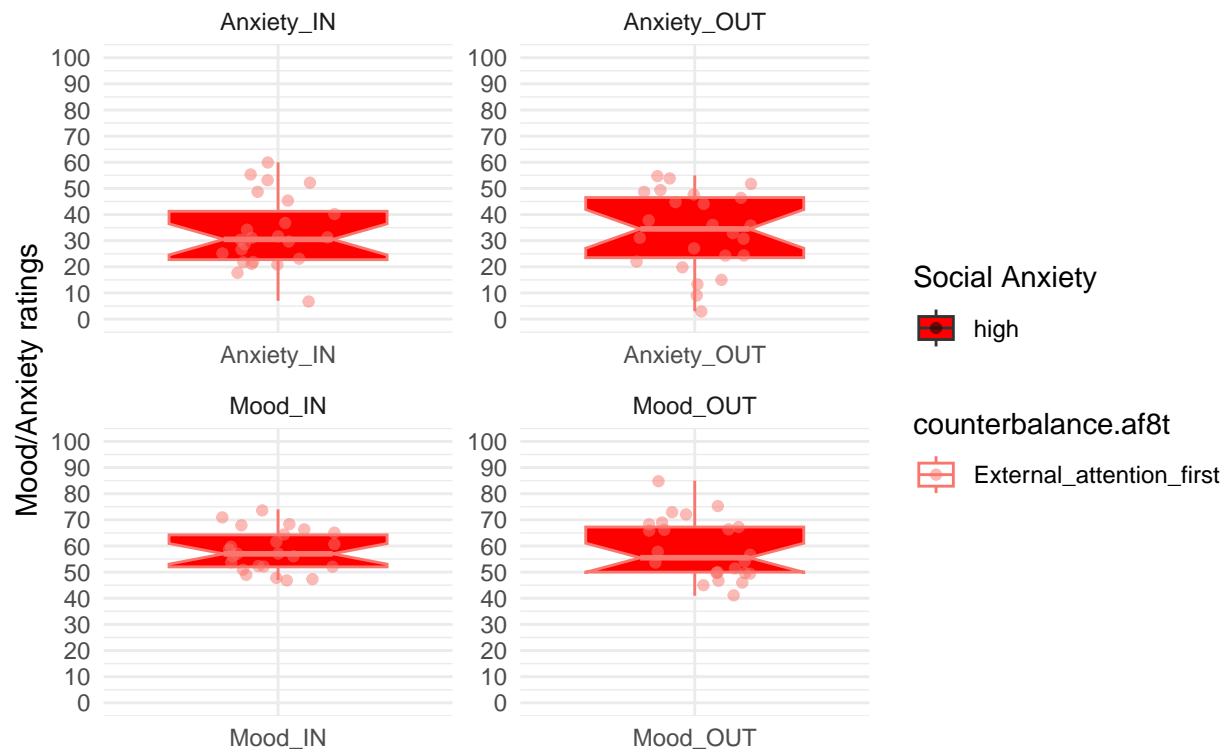


## Anxiety and Mood ratings for subject: SUPPRF89484

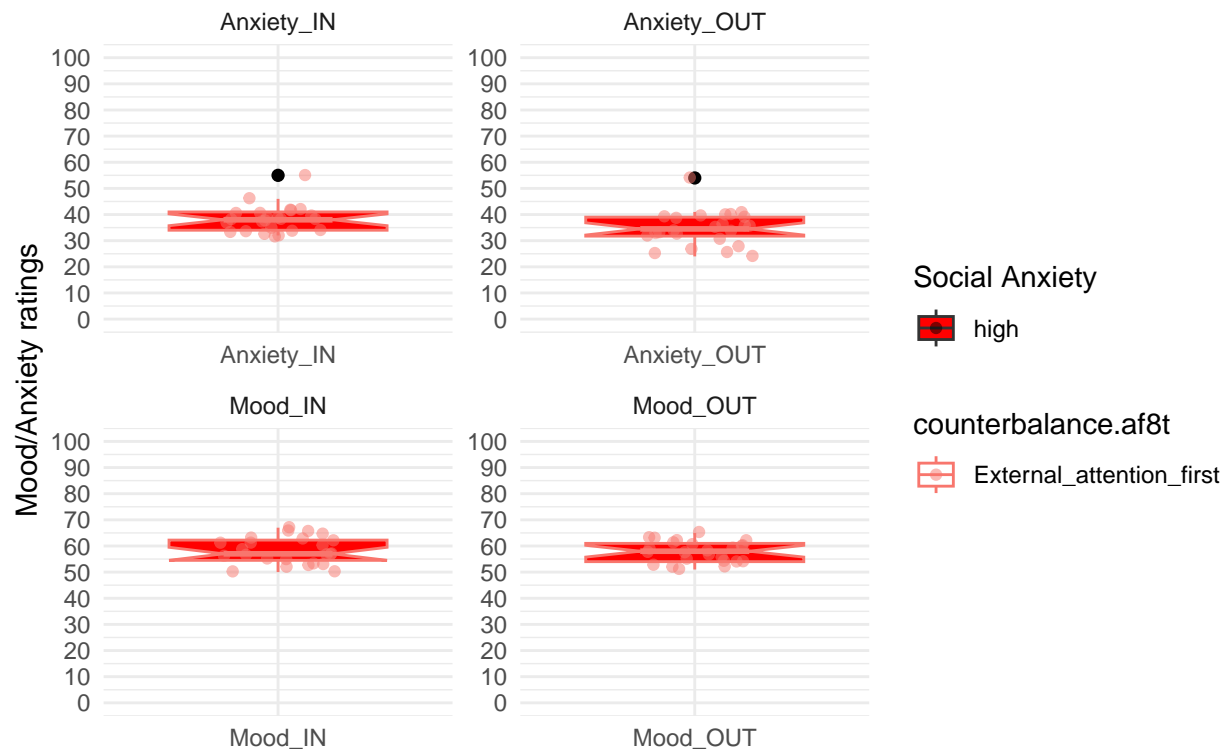




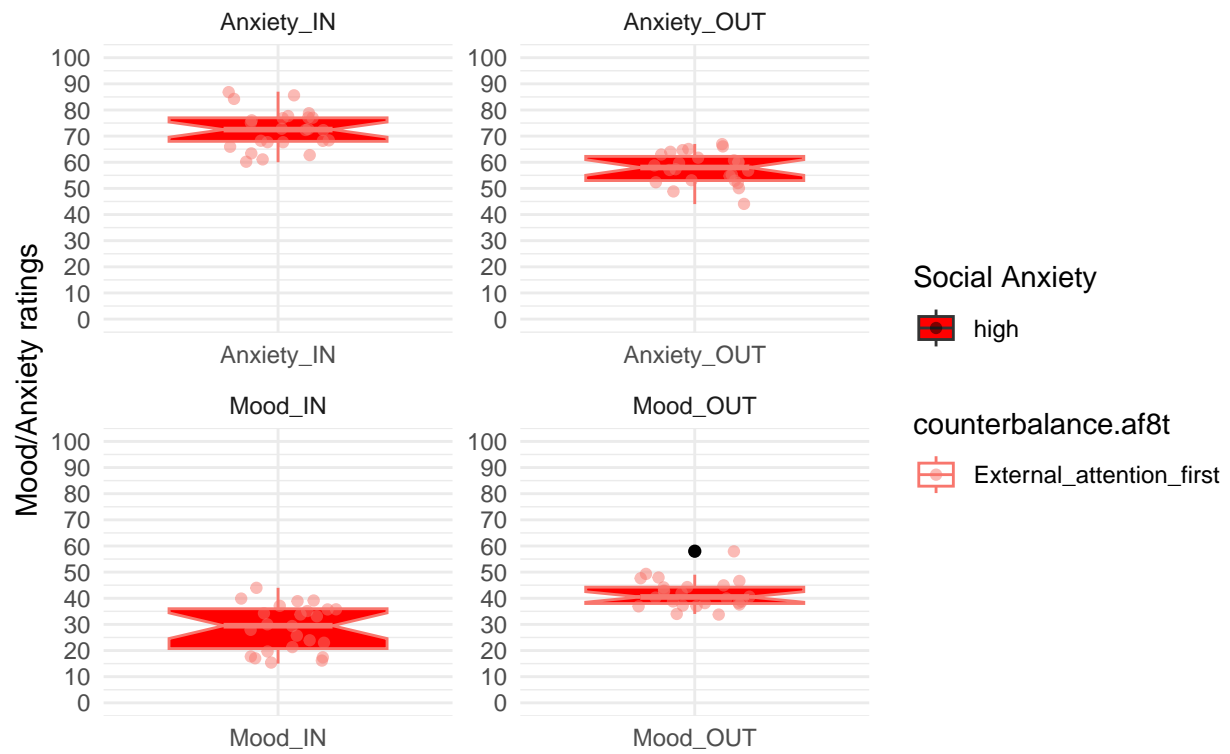
## Anxiety and Mood ratings for subject: SUPPRF92652



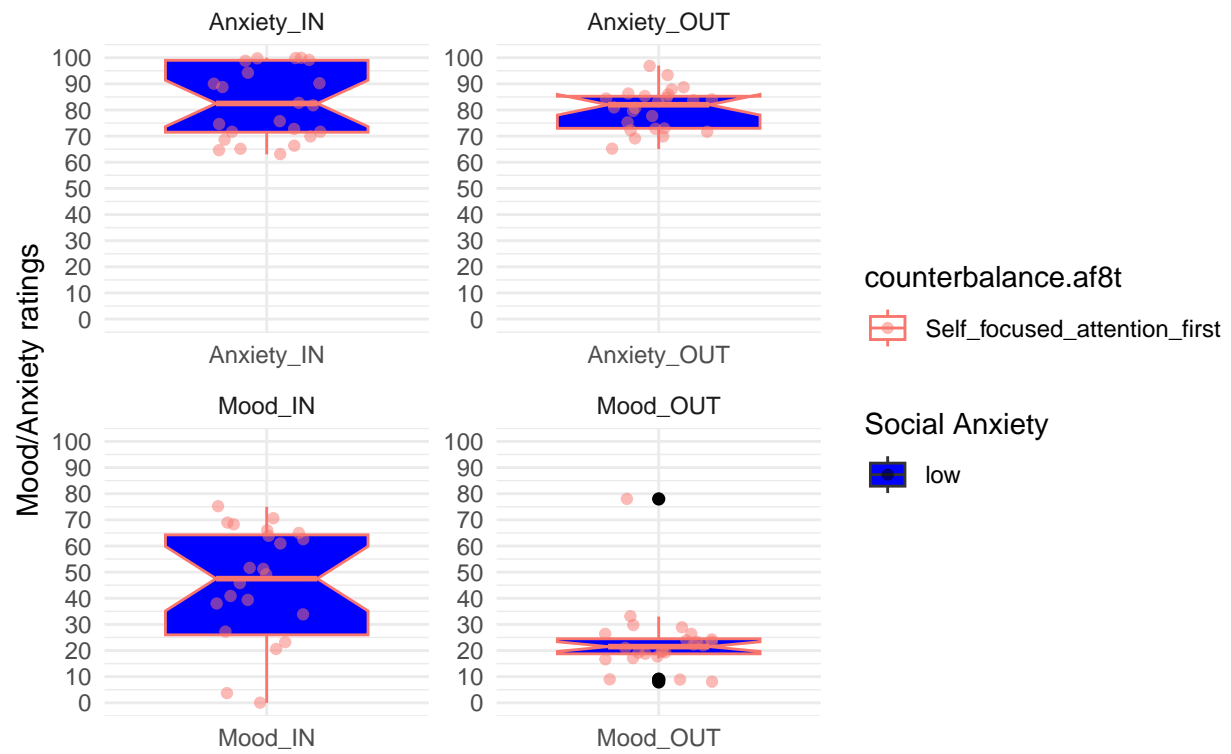
Anxiety and Mood ratings for subject: SUPPRF92791



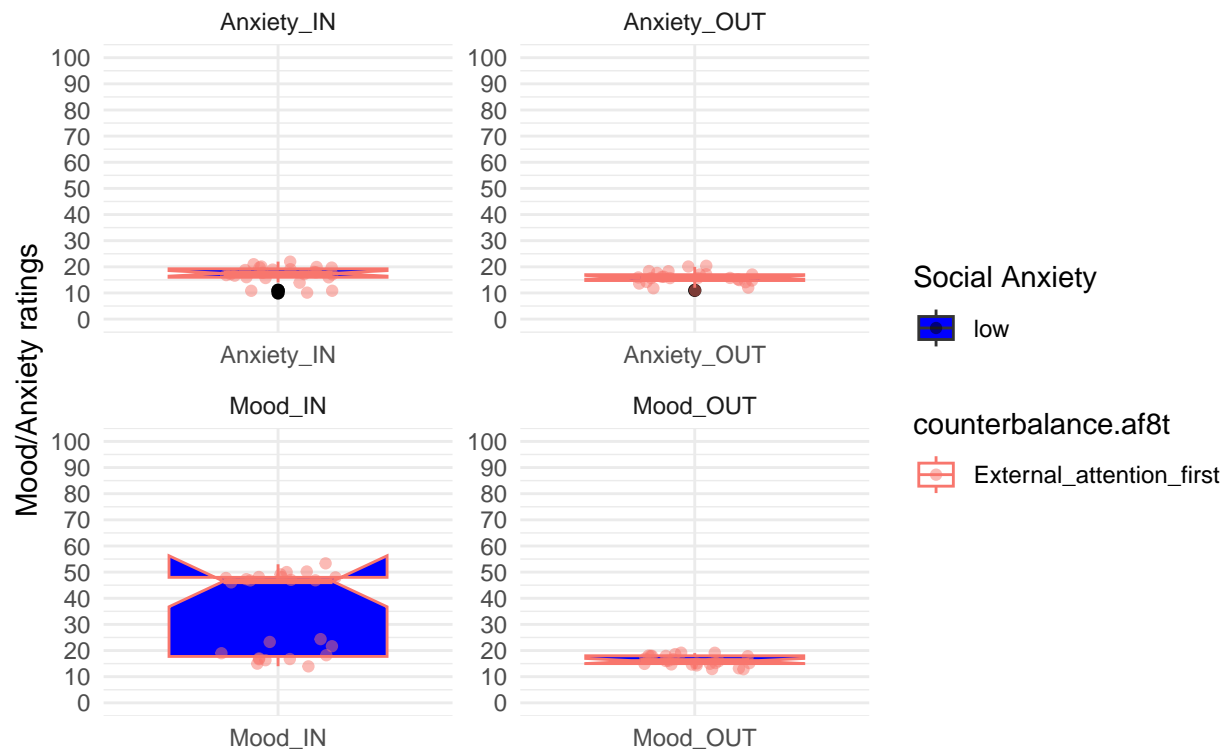
## Anxiety and Mood ratings for subject: SUPPRF93631



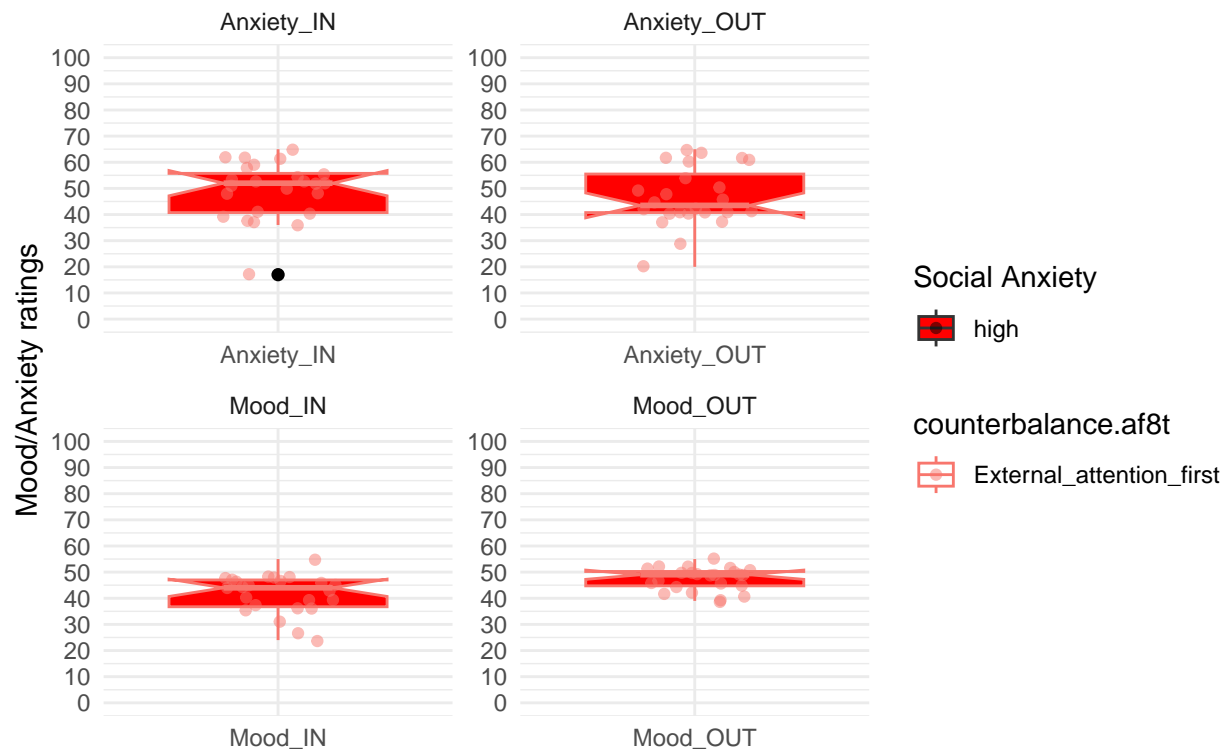
# Anxiety and Mood ratings for subject: SUPPRF96230



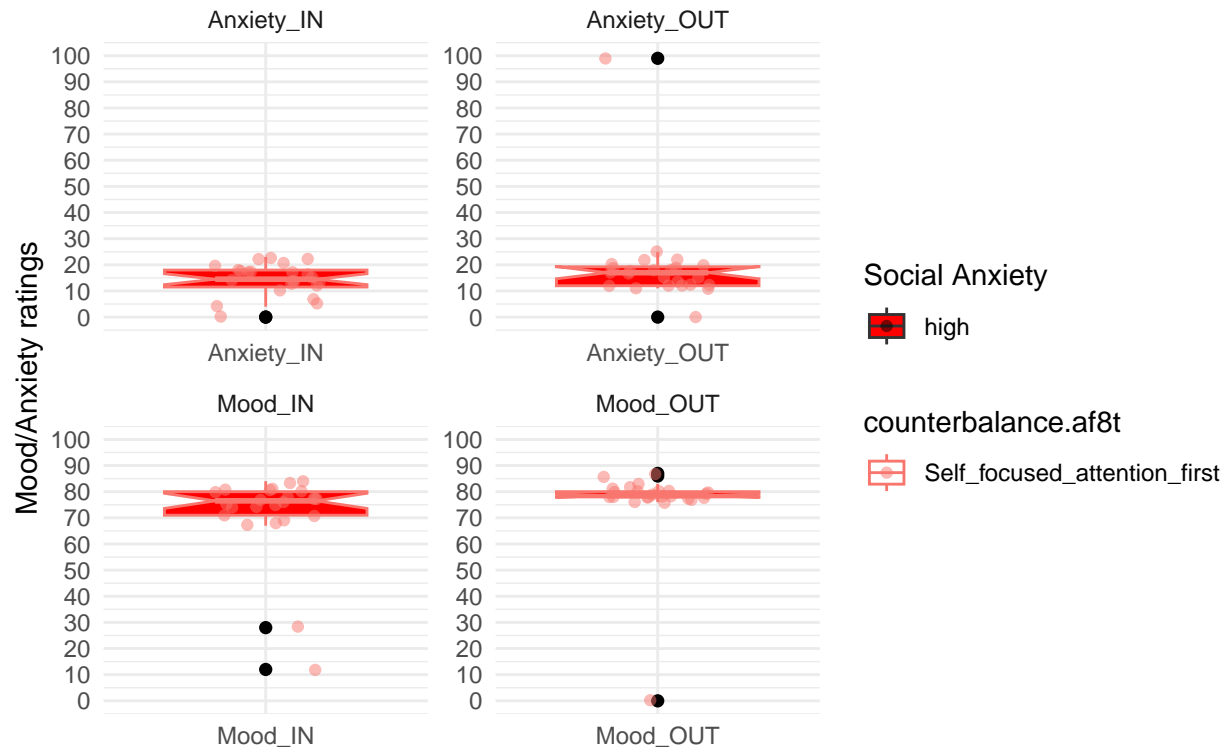
# Anxiety and Mood ratings for subject: SUPPRF96766



## Anxiety and Mood ratings for subject: SUPPRF97977



## Anxiety and Mood ratings for subject: SUPPRF98911

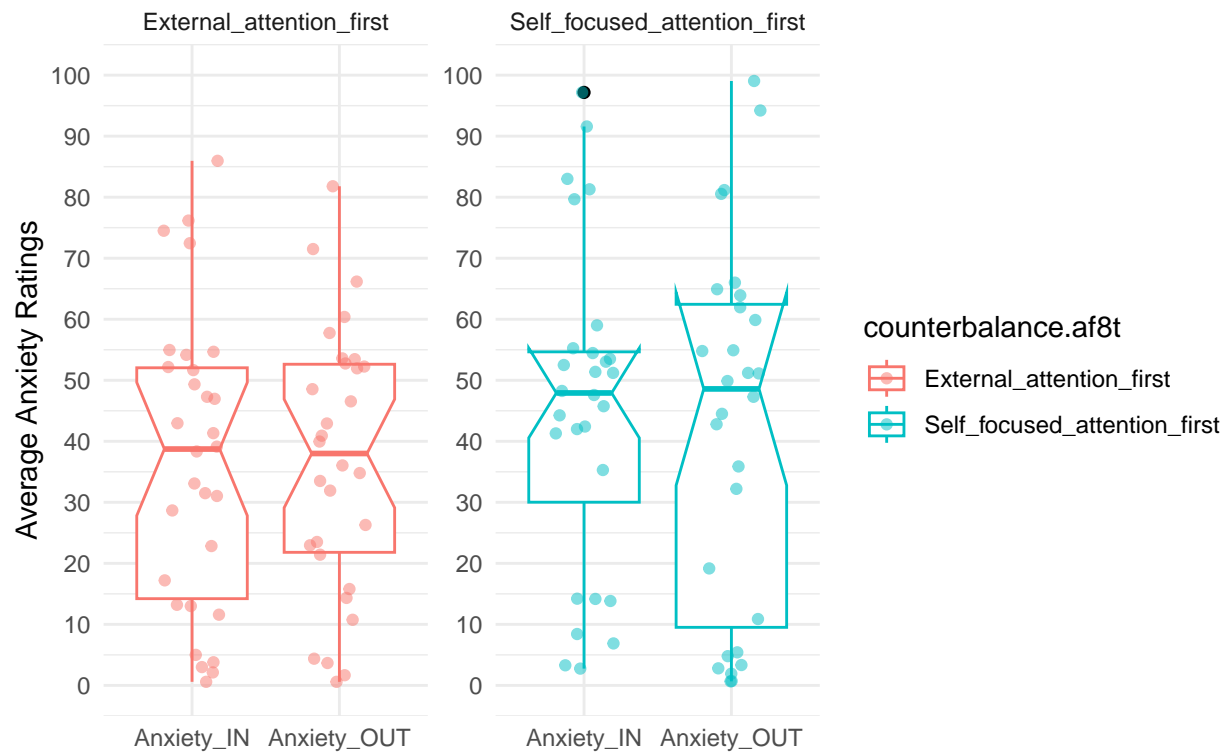


## Anxiety and Mood ratings for subject: SUPPRF99862



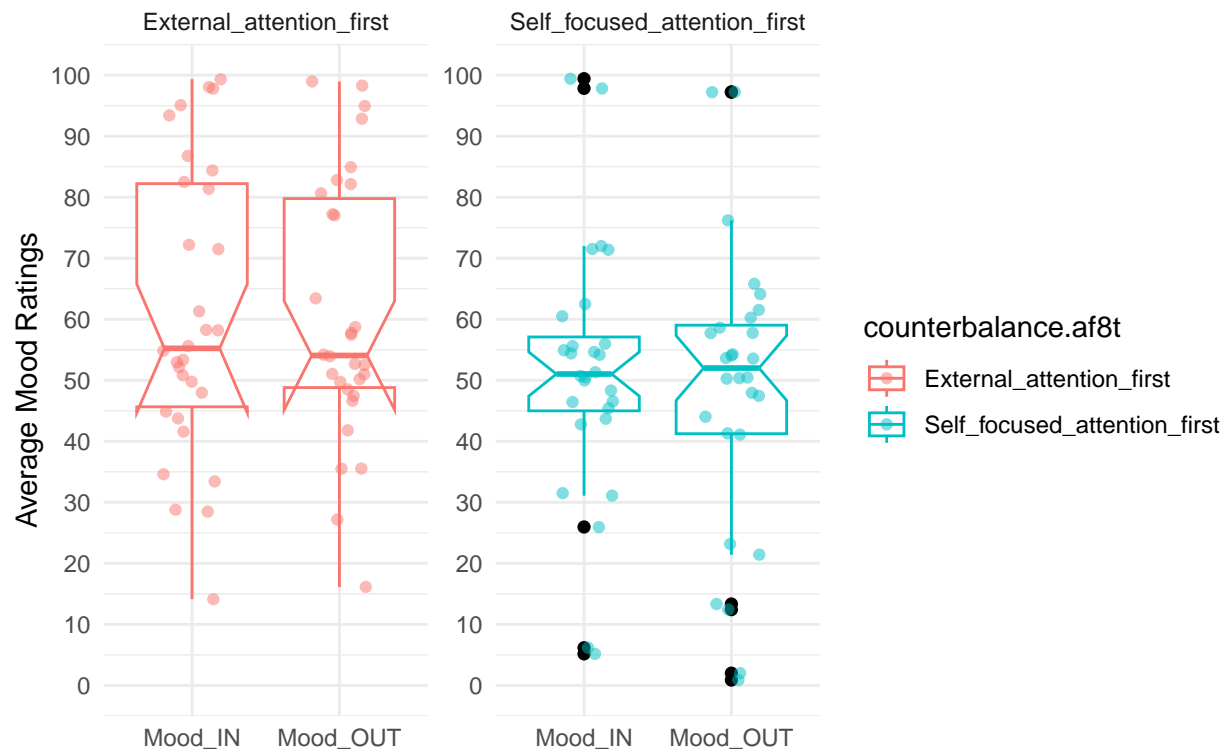


## Average anxiety ratings in IN (internal) & OUT (external) attention condition



```
## # A tibble: 4 x 4
## # Groups:   counterbalance.af8t [2]
##   counterbalance.af8t    Display    mean_response sd_response
##   <chr>                <chr>          <dbl>         <dbl>
## 1 External_attention_first Anxiety_IN        36.6          24.0
## 2 External_attention_first Anxiety_OUT        36.7          21.8
## 3 Self_focused_attention_first Anxiety_IN        45.5          26.4
## 4 Self_focused_attention_first Anxiety_OUT        42.4          30.0
```

## Average mood ratings in IN (internal) & OUT (external) attention conditions

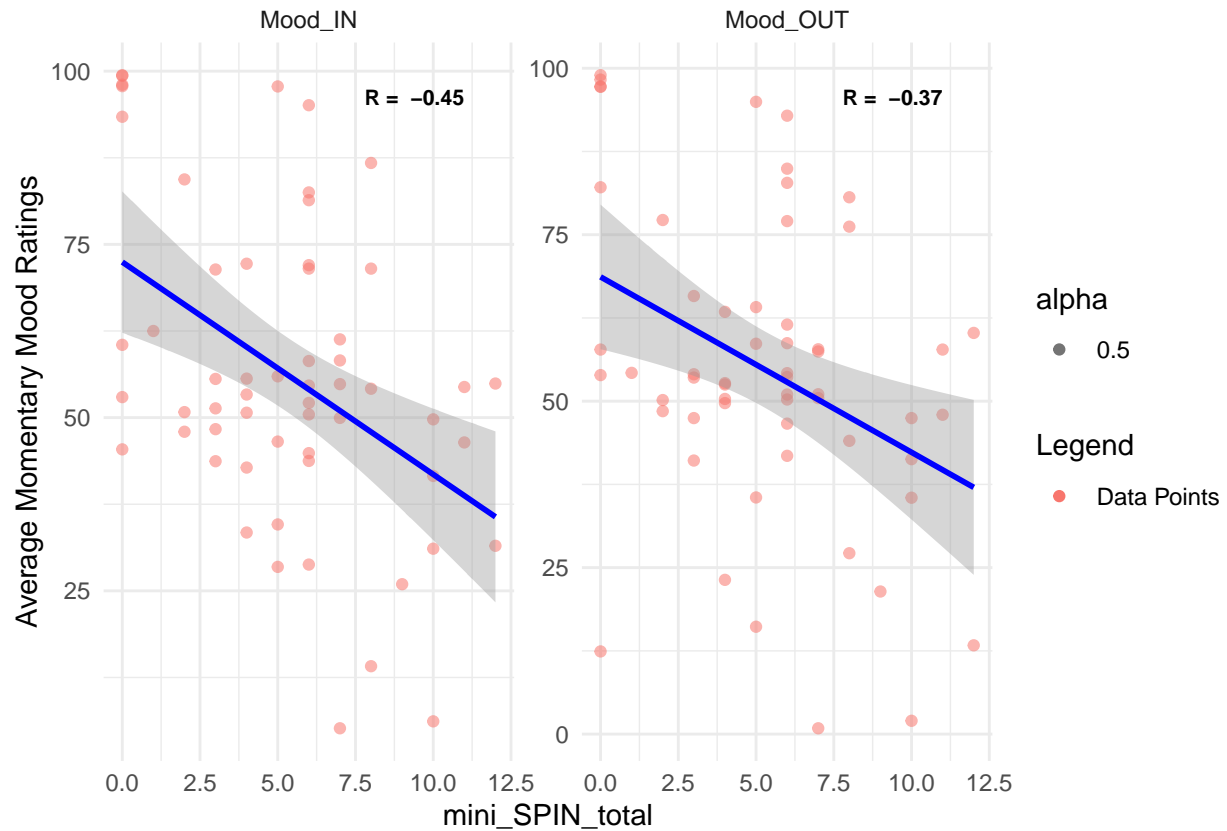


```
## # A tibble: 4 x 4
## # Groups:   counterbalance.af8t [2]
##   counterbalance.af8t    Display mean_response sd_response
##   <chr>                <chr>         <dbl>         <dbl>
## 1 External_attention_first Mood_IN           60.9          23.6
## 2 External_attention_first Mood_OUT           60.7          21.6
## 3 Self_focused_attention_first Mood_IN           51.4          20.9
## 4 Self_focused_attention_first Mood_OUT           48.5          23.8
```

## Relationship between mini\_SPIN and momentary mood ratings

The plot below show the relationship between (average) mood ratings on the task and the total mini\_SPIN scores.

```
## [1] "correlation between mini_SPIN_total and average mood ratings: -0.409460955665047"
```



## Relationship between mini\_SPIN and momentary mood ratings

The plot below show the relationship between (average) anxiety ratings on the task and the total mini\_SPIN scores.

```
## [1] "correlation between mini_SPIN_total and average anxiety ratings: 0.144019737741781"
```

