# Surprise study pilot 22

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## Study description

This study is the same as pilot 21, except we have now two new questions measuring anxiety: 1) how nervous would you feel to talk to this person again? 2) how embarrassed do you feel right now?

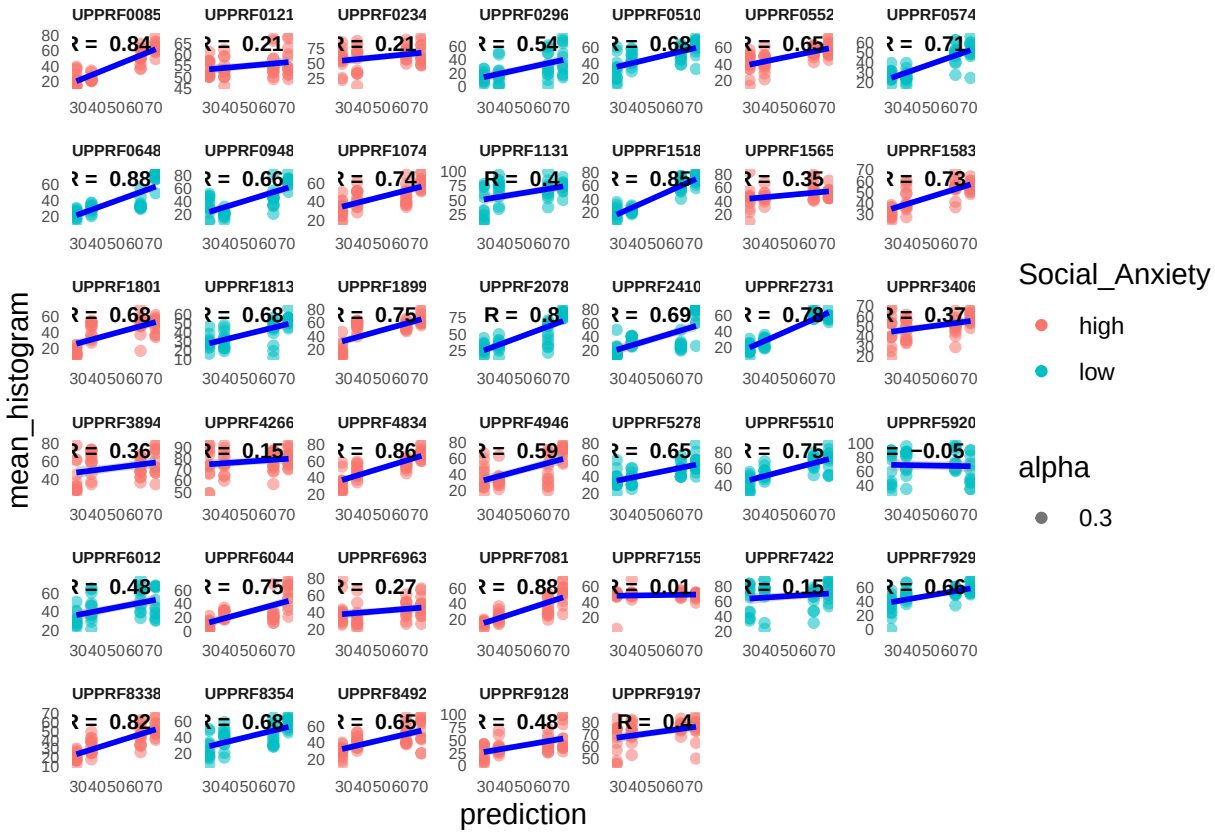
We would like to see whether these are more specific answers to tap into social anxiety (after the feedback we received from Quentin).

The Gorilla experiment is the following: https://app.gorilla.sc/admin/experiment/175580/design The task is the following: https://app.gorilla.sc/admin/task/812527/editor?version=4

```
## # A tibble: 40 x 2
##    Random_ID   Trial.Number
##    <chr>              <int>
##  1 SUPPRF00852           48
##  2 SUPPRF01218           48
##  3 SUPPRF02345           48
##  4 SUPPRF02960           48
##  5 SUPPRF05105           48
##  6 SUPPRF05526           48
##  7 SUPPRF05744           48
##  8 SUPPRF06489           48
##  9 SUPPRF09487           48
## 10 SUPPRF10740           48
## # i 30 more rows
```

# Relationship between prediction and mean histograms (4x only in the beginning)

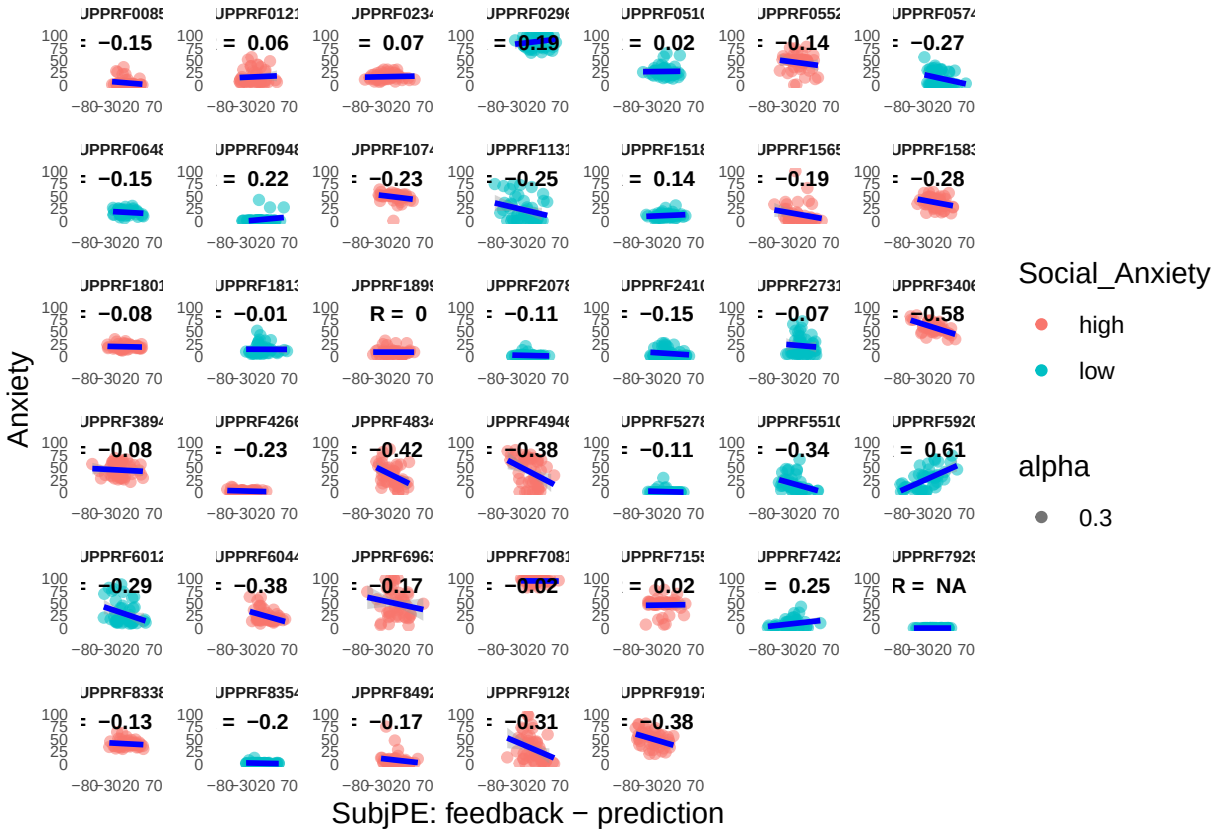
```
## [1] "average correlation between mean_hist and prediction: 0.568515690909223"
```



# Relationship between Anxiety and SubjPE

The anxiety question now asks "how nervous would you feel to talk to this person again?". It shows a correlation of -0.12, in our previous pilot where we asked "how nervous/uncomfortable do you feel right now" we had a correlation of -0.15.

```
## [1] "average correlation between anxiety and SubjPE: -0.120345800998021"
```



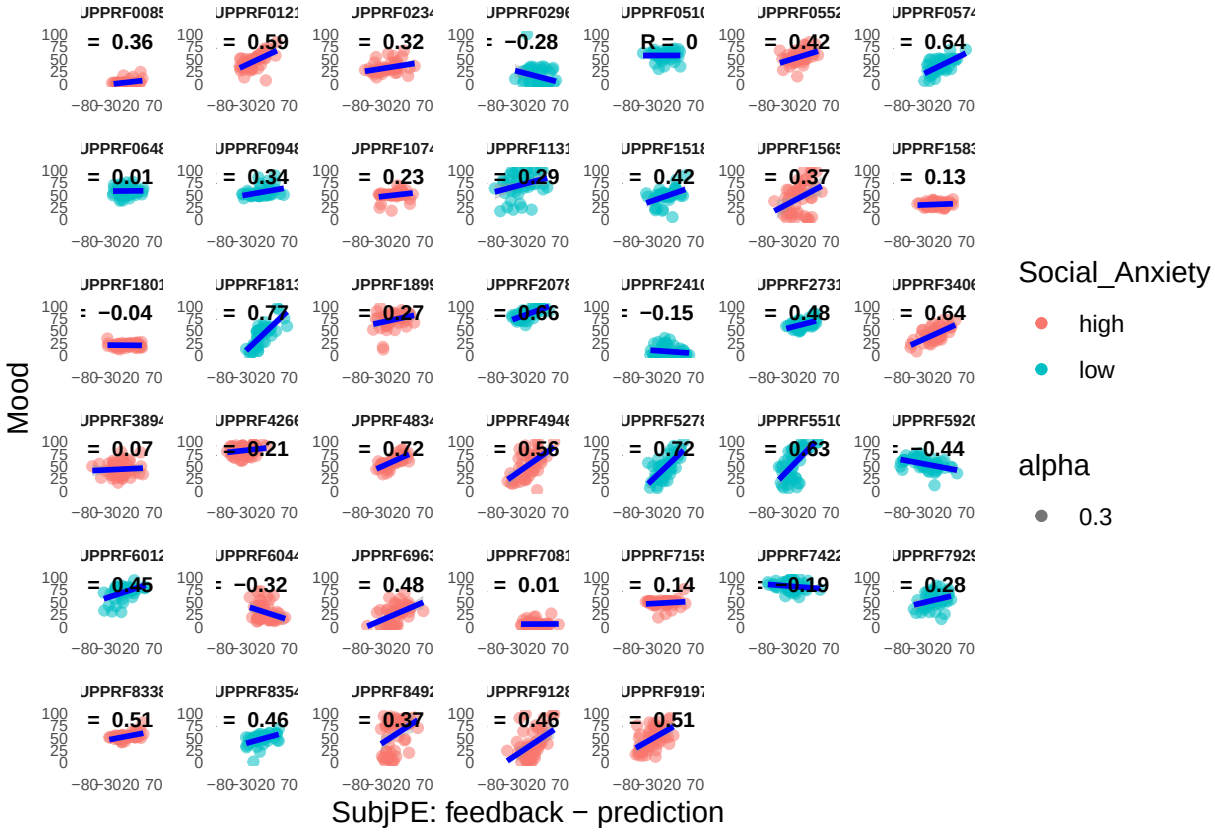
# Relationship between Embarrassment and SubjPE

We asked people one additional question that was more specifically related to their social anxiety: "how embarrassed do you feel right now?". The correlation is similar to the previous question (r = -0.12).

```
## [1] "average correlation between embarrassment and SubjPE: -0.121277223333563"
```

# Relationship between Mood and SubjPE

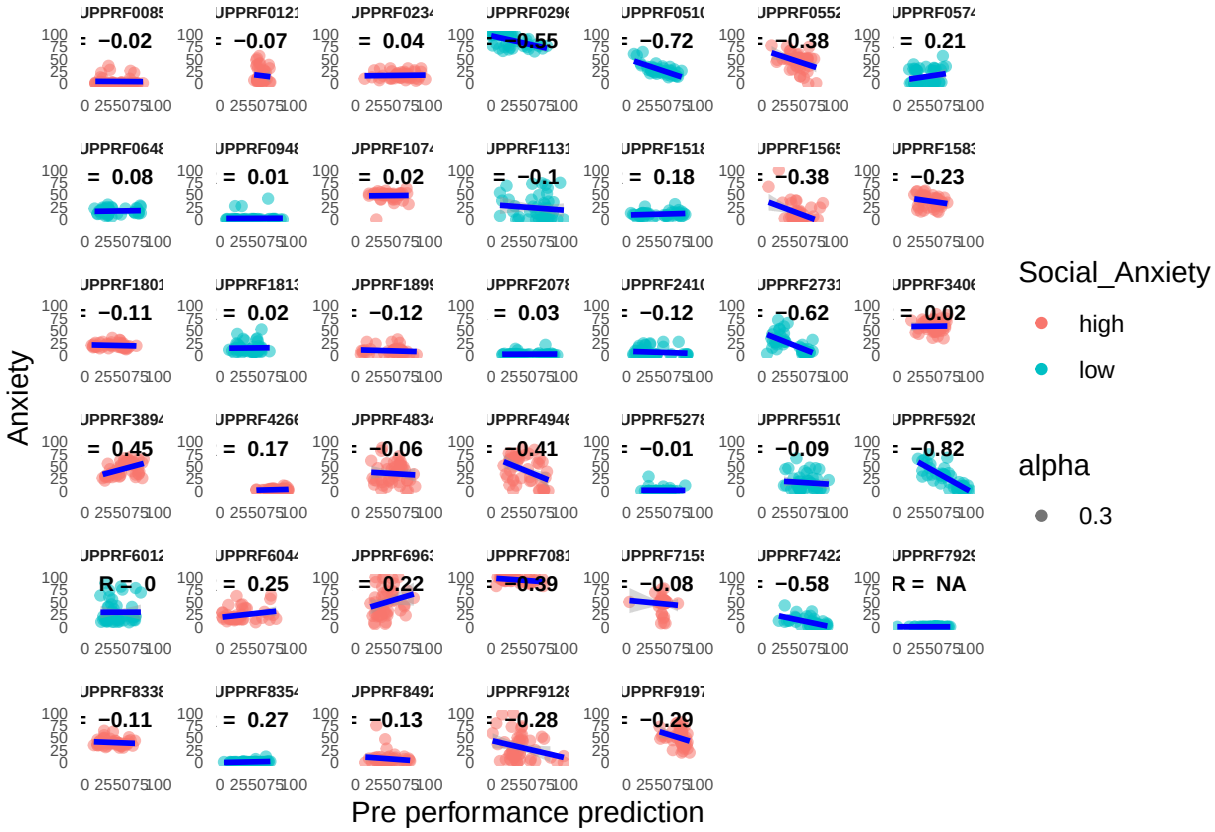
```
## [1] "average correlation between mood and SubjPE: 0.303707873256331"
```



# Relationship between Anxiety and prediction

The correlation between "how nervous would you feel to talk to this person again" and prediction is bigger than the one with SubjPE (-0.14 vs -0.11), with our previous question in pilot 21 it was the other way around, and we had a correlation of almost -0.15.

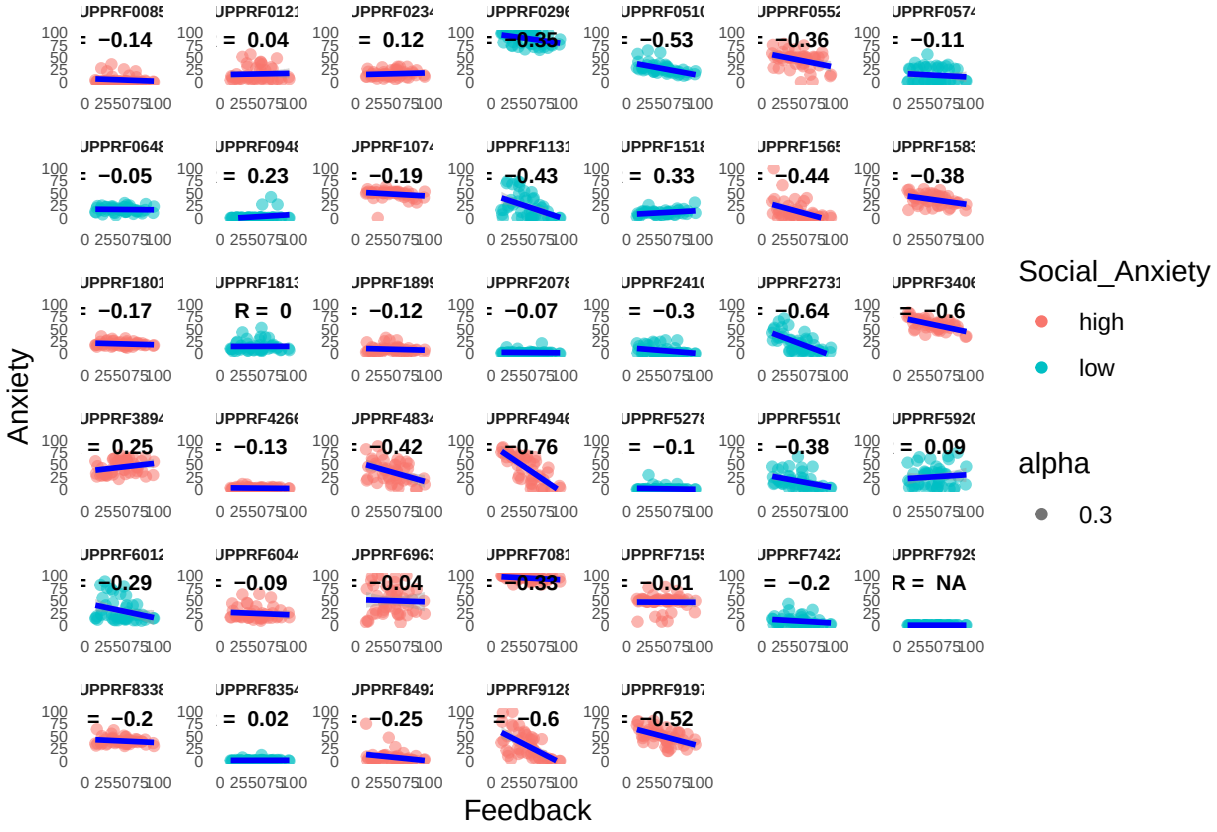
```
## [1] "average correlation between anxiety and prediction: -0.120705627009434"
```



# Relationship between Anxiety and feedback

Again, the relationship between "how nervous would you feel to talk to this person again" and feedback is stronger than what we had before (-0.21, vs -0.17).

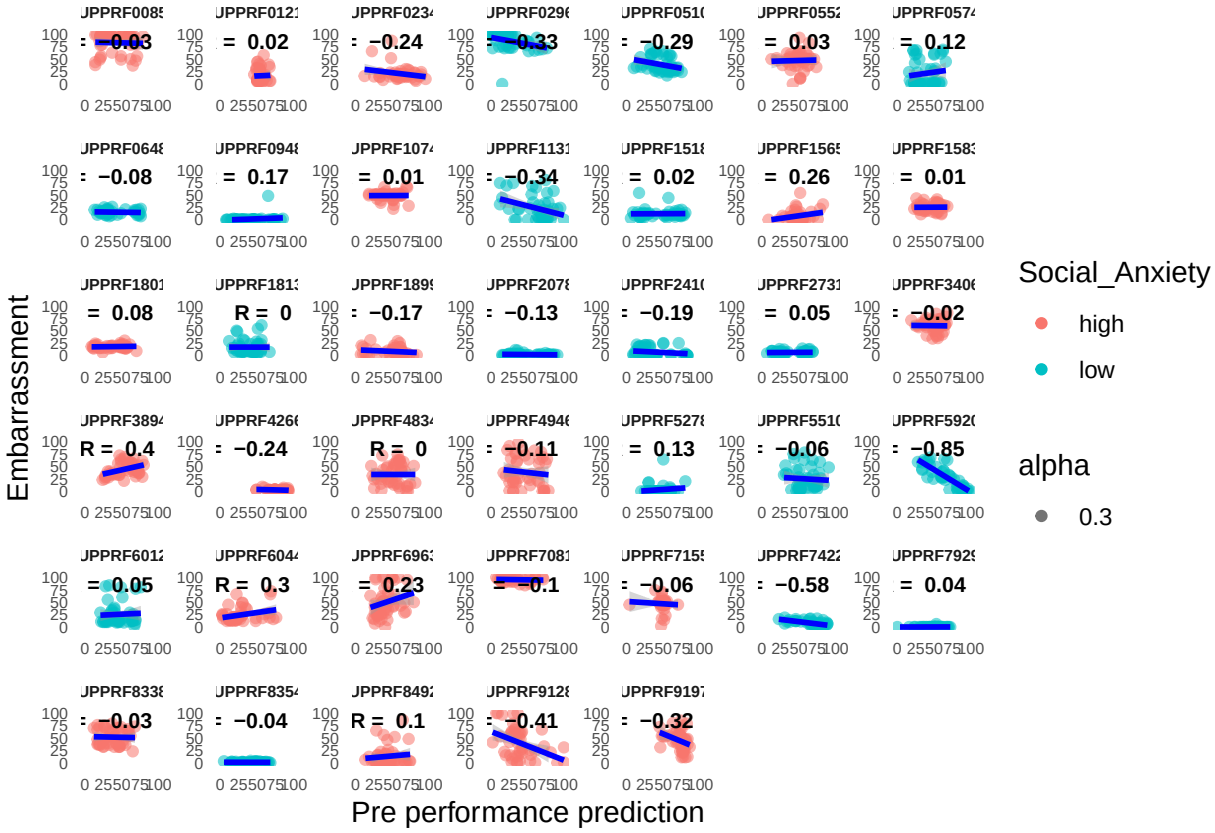
```
## [1] "average correlation between anxiety and feedback: -0.207934266916119"
```



# Relationship between Embarrassment and prediction

A much weaker correlation with embarrassment and prediction (r = -0.06).

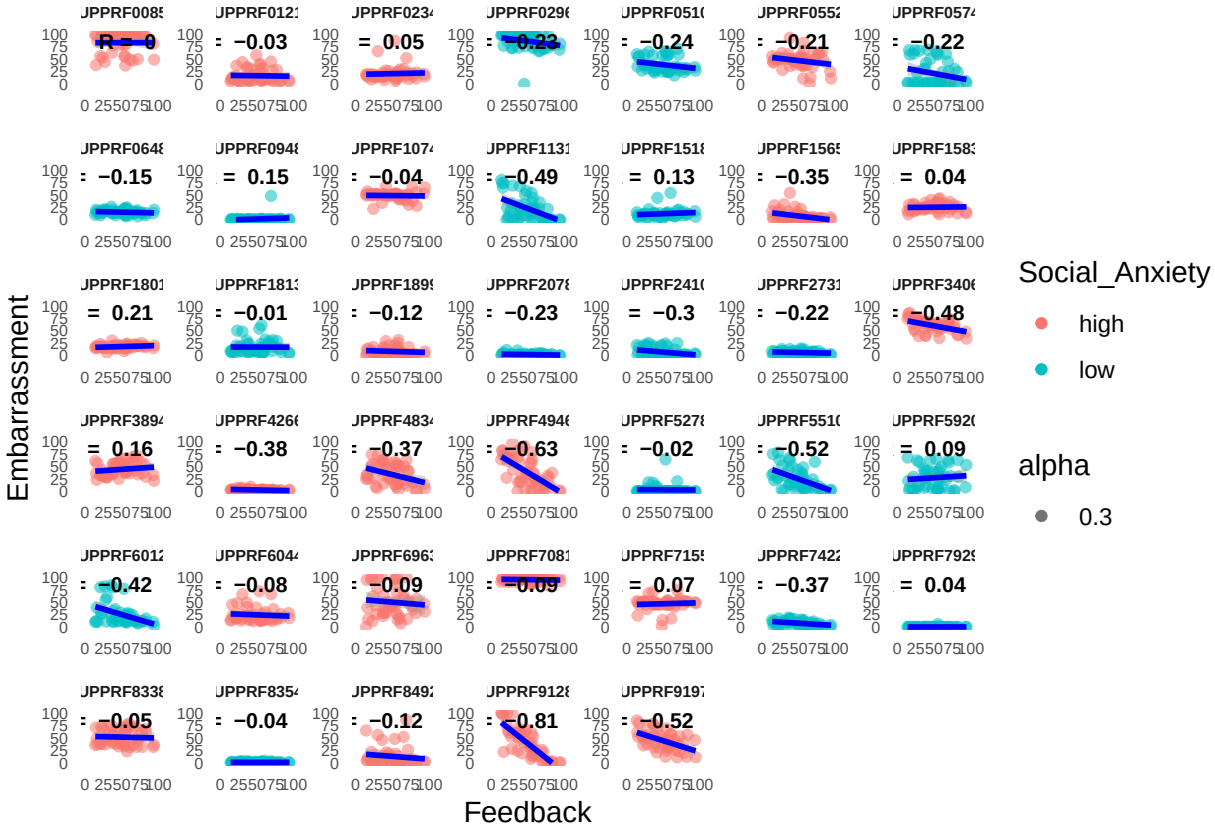
```
## [1] "average correlation between Embarrassment and Prediction: -0.0651567595928297"
```



# Relationship between Embarrassment and prediction

But again a stronger correlation with feedback (r = -0.17).

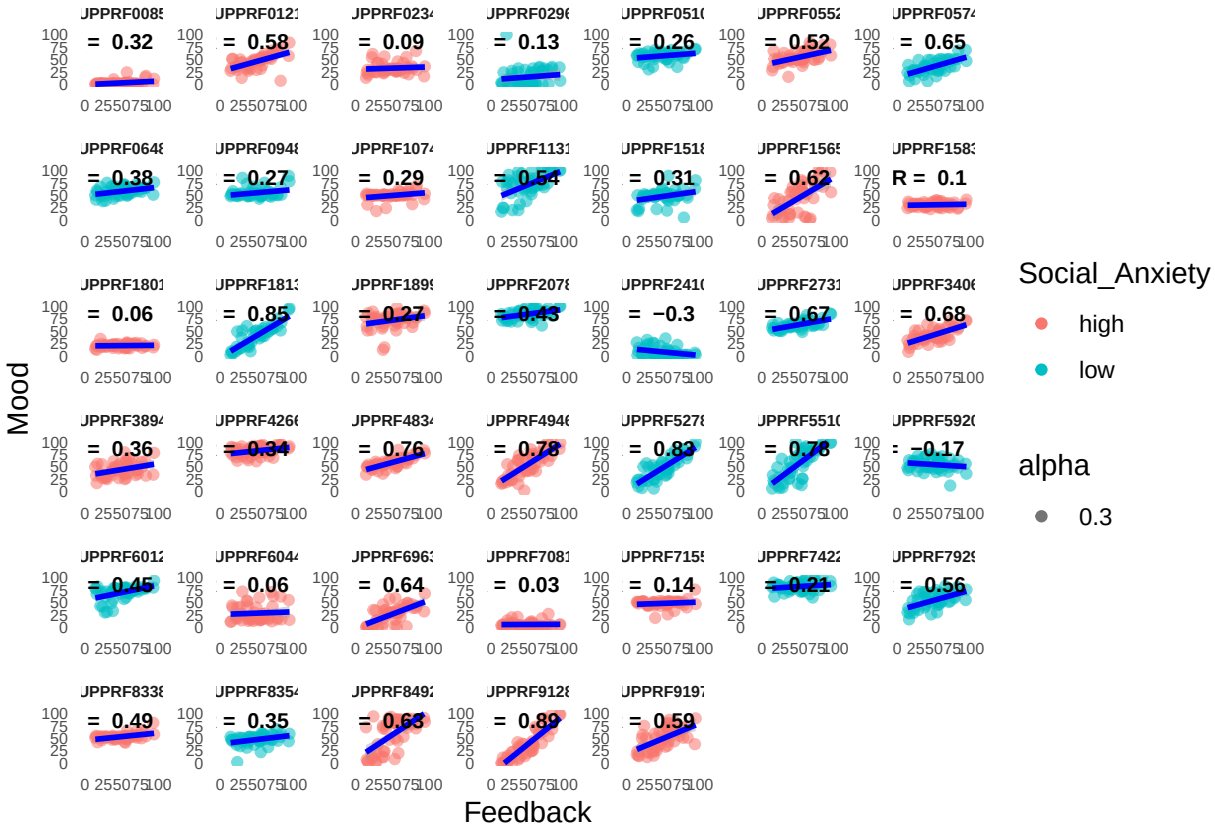
```
## [1] "average correlation between Embarrassment and Feedback: -0.172122401273124"
```



# Relationship between Mood and feedback

A stronger correlation between mood and feedback which is the same as before.

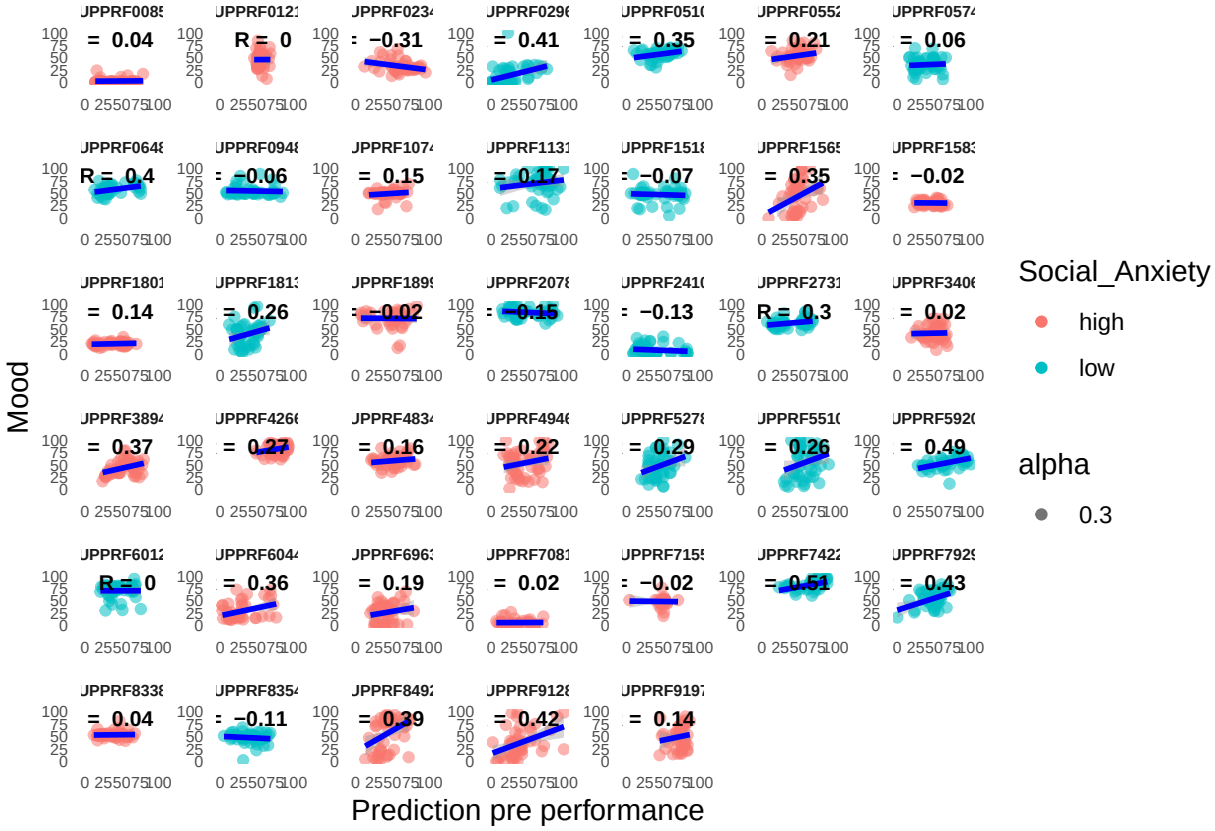
```
## [1] "average correlation between mood and feedback: 0.411449295966044"
```



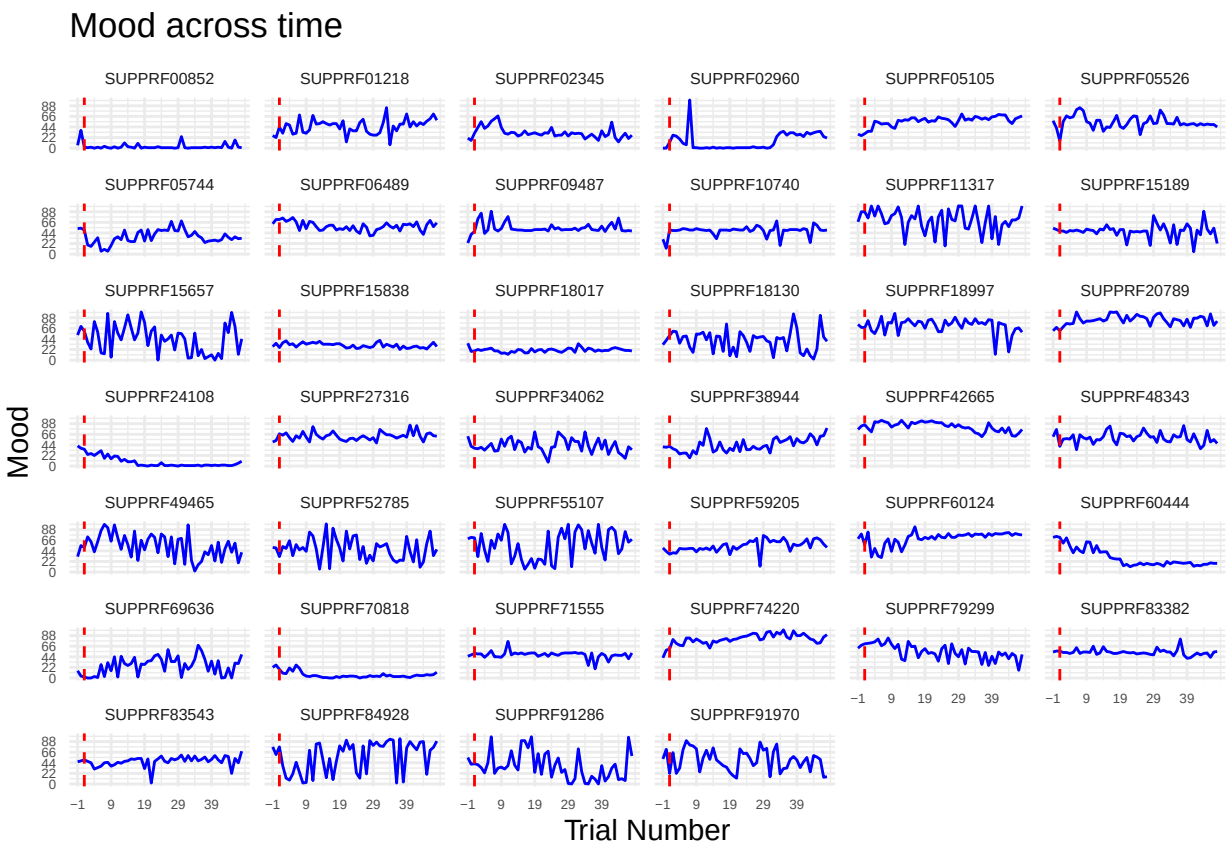
# Relationship between Mood and prediction (pre-performance)

Similar to before, we have a weaker correlation with prediction and mood.

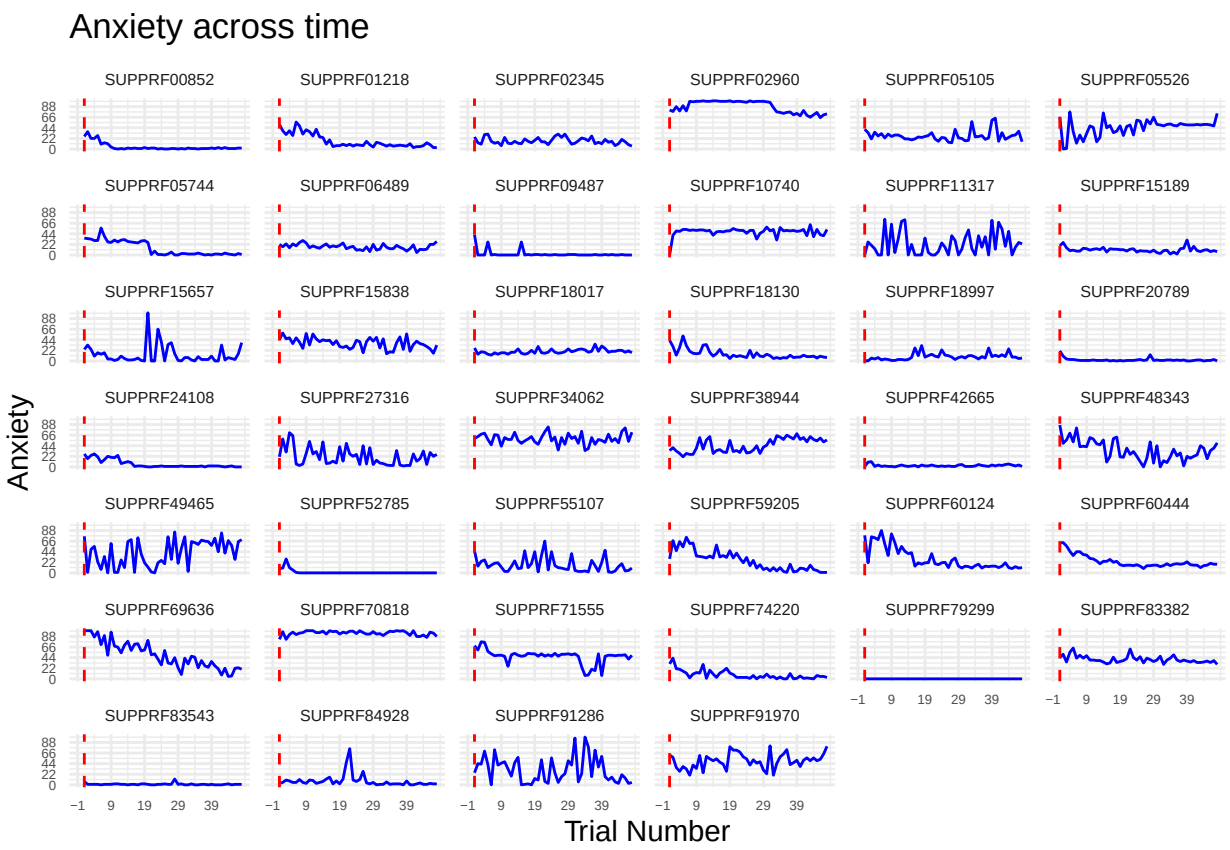
```
## [1] "average correlation between mood and prediction before performance: 0.163506456761896"
```



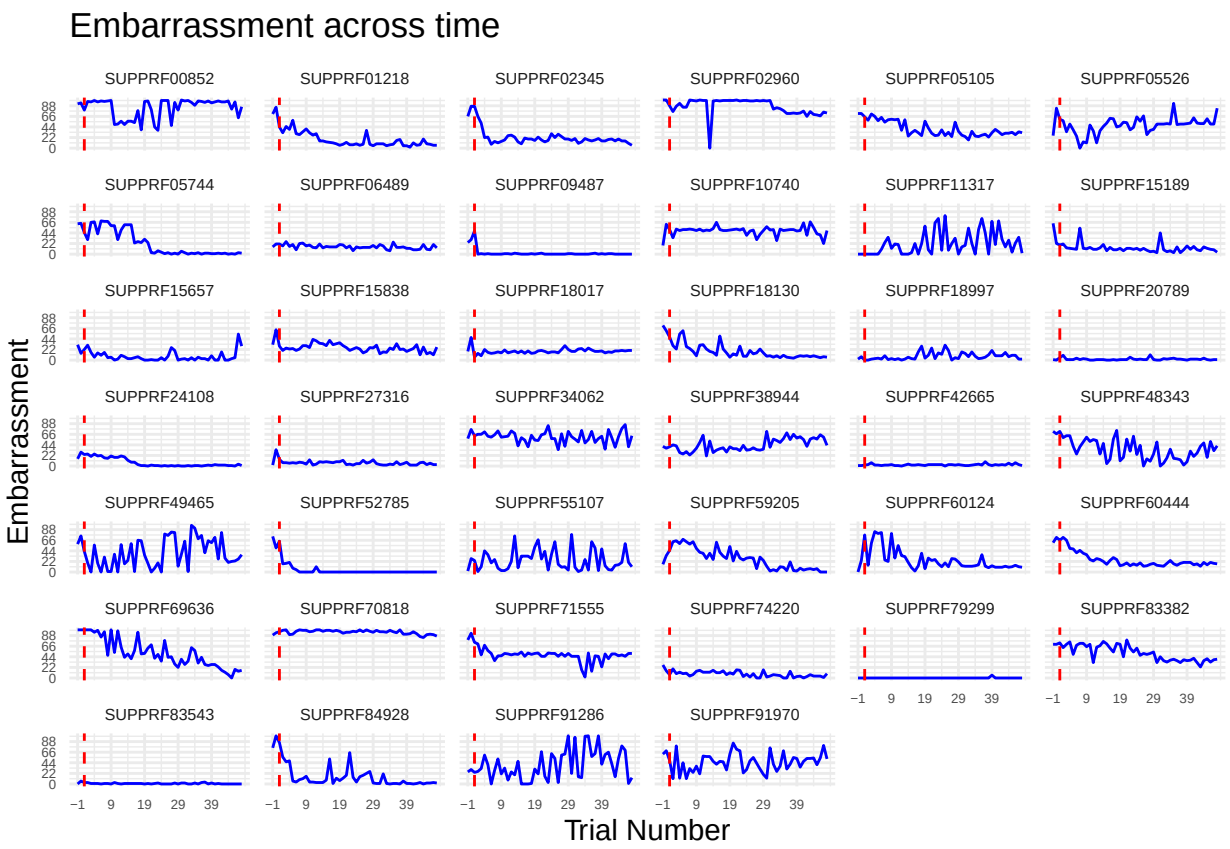
# Mood over time



# Anxiety over time

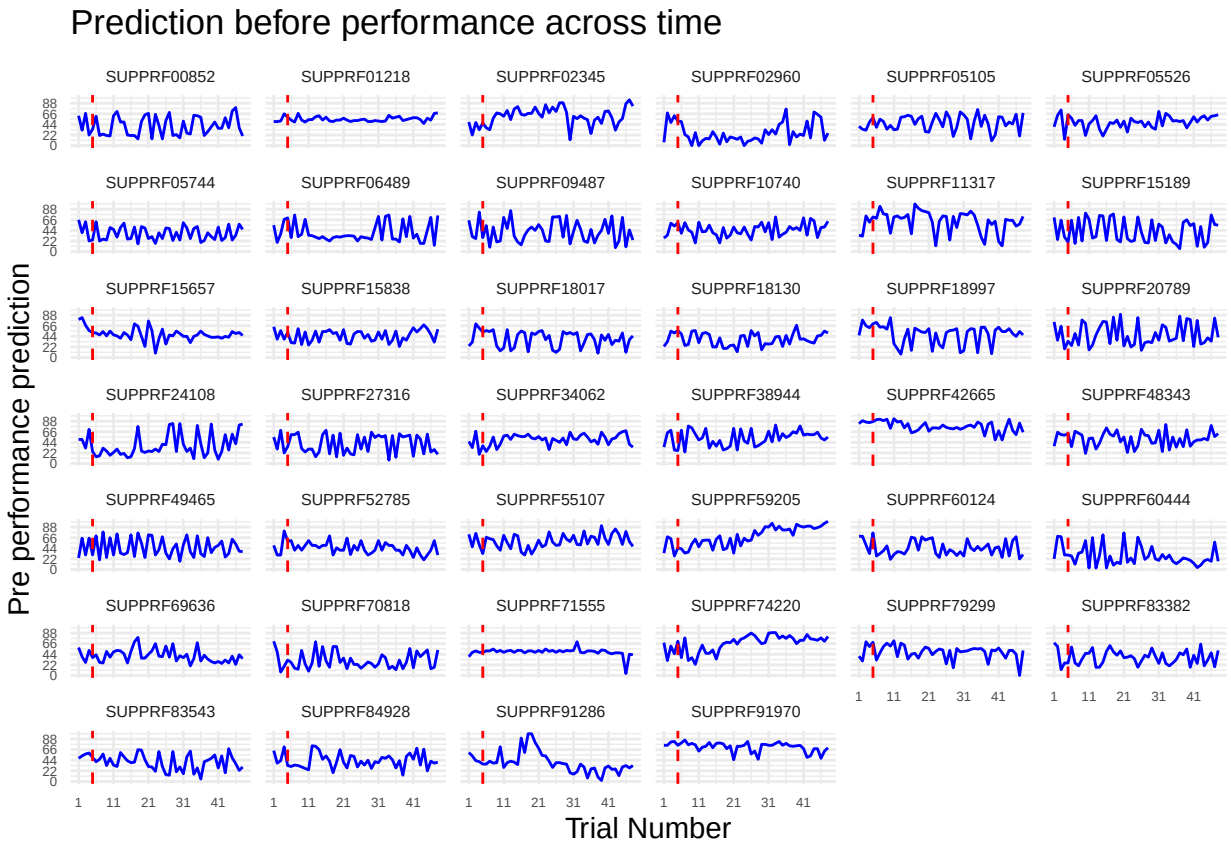


## Embarrassment over time

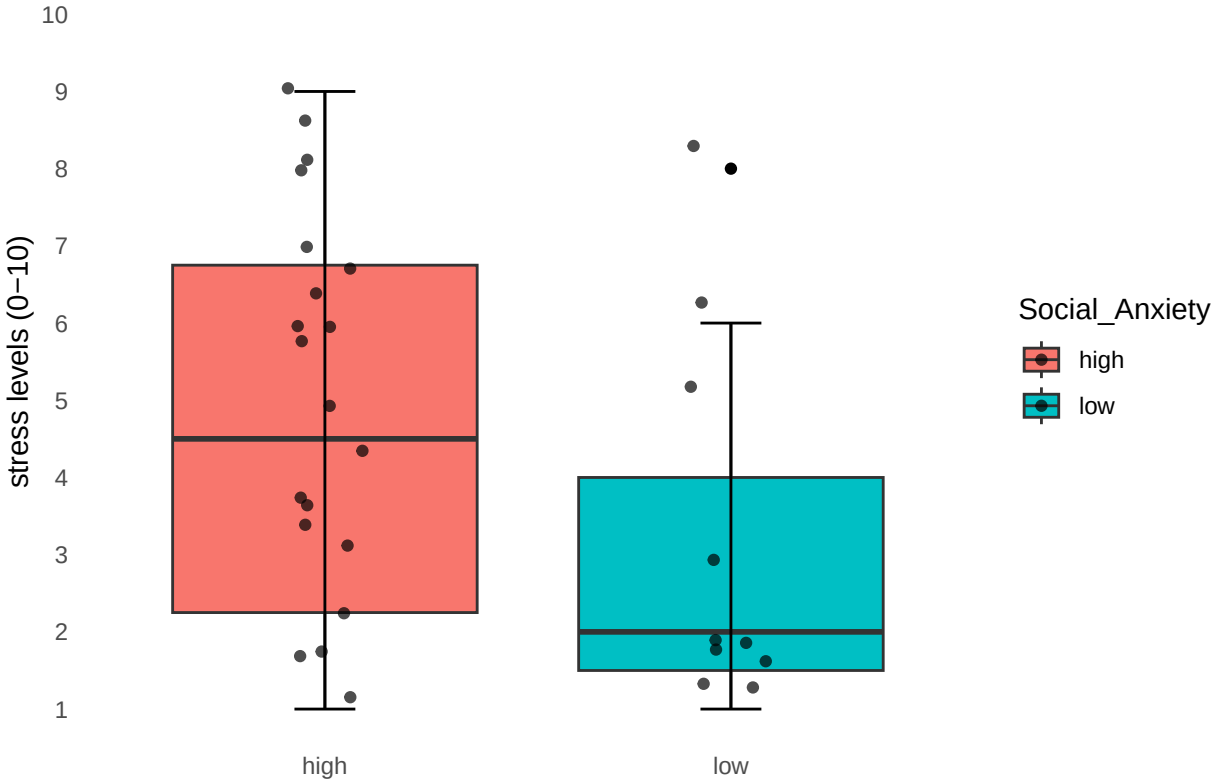


## Prediction before performance over time

Red line presents until what points histograms were presented (4 first trials only).



## Stress levels and social anxiety



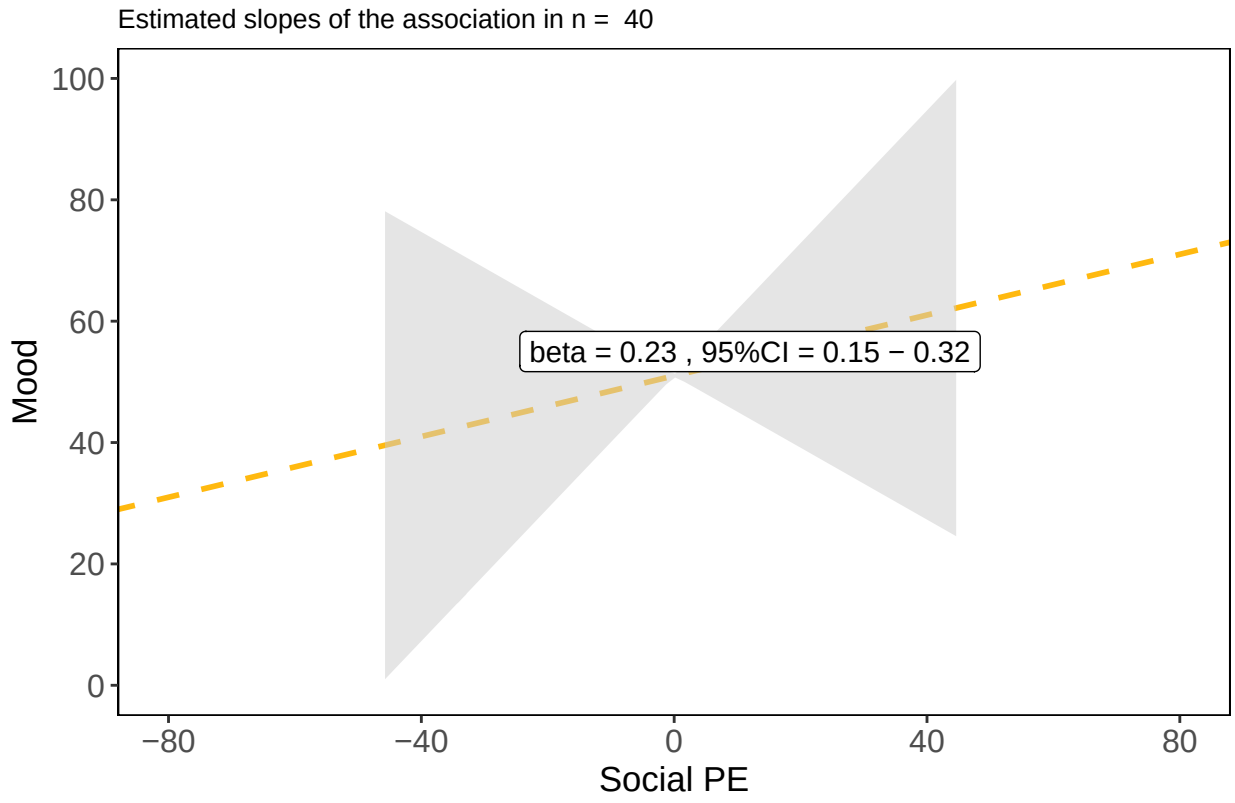
## LME models for Mood and SubjPE

The best model seems to be: Mood ~ SubjPE + mini_SPIN_total + (SubjPE | Random_ID)

```
## [1] 15991.17
```

```
## [1] 16178.53
```

```
## [1] 15990.75
```



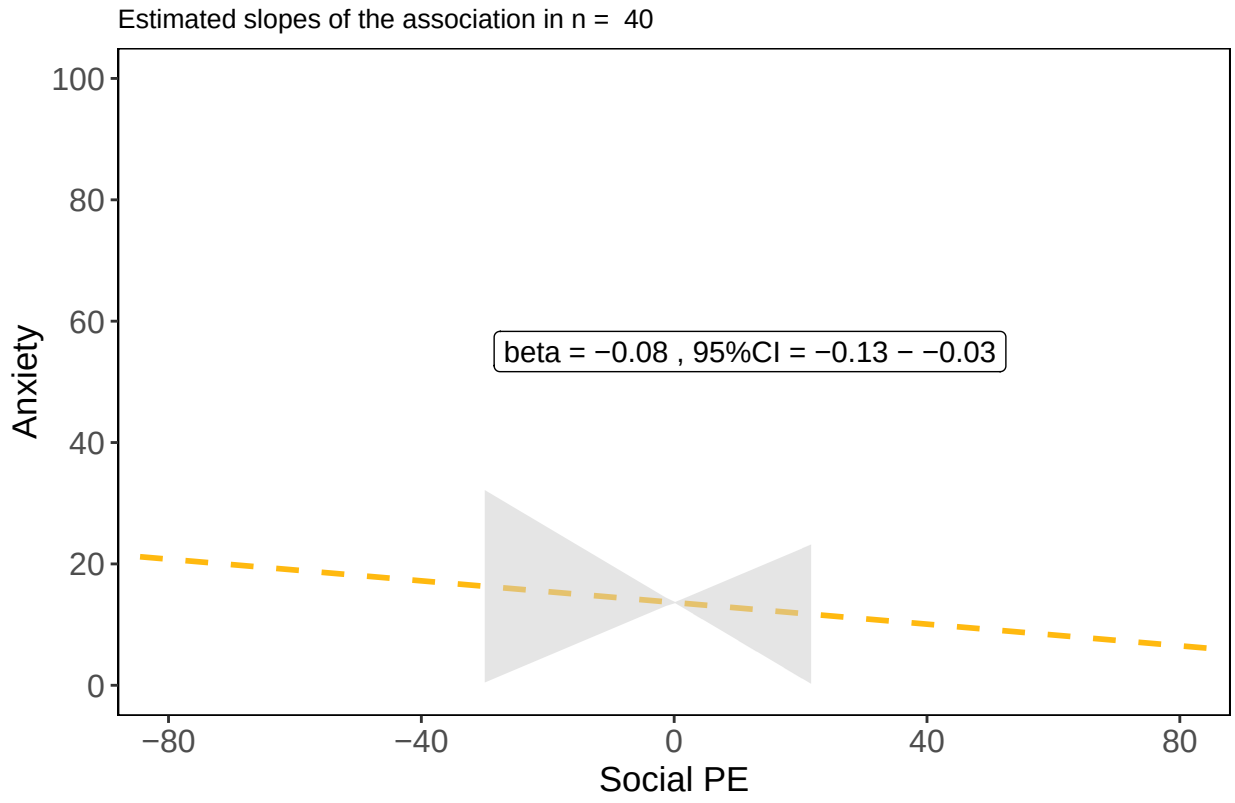
## LME models for Anxiety and SubjPE

The best model seems to be: Anxiety ~ SubjPE + mini_SPIN_total + (SubjPE | Random_ID)

```
## [1] 15768.44
```

```
## [1] 15826.42
```

```
## [1] 15764.6
```



## LME models for Embarrassment and SubjPE

The best model seems to be: Embarrassment ~ SubjPE + mini_SPIN_total + (SubjPE | Random_ID)

```
## [1] 16103.06
```

```
## [1] 16199.14
```

```
## [1] 16098.69
```