

# Surprise study pilot 14

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## Study description

This study has the same version of PE's as pilots 10 and 11, also having video and audio only. In this pilot we 1) replaced the judge pictures with cartoon images to see whether it becomes more believable as many people believed those images were AI generated, 2) we allow participants to also choose their own avatar, again to make it more believable that the others are also real, 3) we have created a new narrative around public speaking and what is the goal of this task and added criteria they will be judged open to make them more nervous but also make it more believable if they get a rating that they cannot guess what they were judged upon at each trial (they are told the judges will receive a new criterion per trial), 4) lastly, we changed two feedback questions to inquire about believability, one of them being a scale asking "How stressful was this as a social situation?"

The Gorilla experiment is the following: <https://app.gorilla.sc/admin/project/120255> The task is the following: <https://app.gorilla.sc/admin/task/741126/editor?version=13>

I will write this here as well for us to have, if we forget again:

**Positive PE:** we selected numbers from a normal distribution ranging from 12-20, added this number to the mean of the histogram.

**Negative PE:** we selected numbers from a normal distribution ranging from 12-20, subtracted this number to the mean of the histogram.

**Big positive PE:** Per judge, we added 10 to the biggest positive feedback we had generated before.

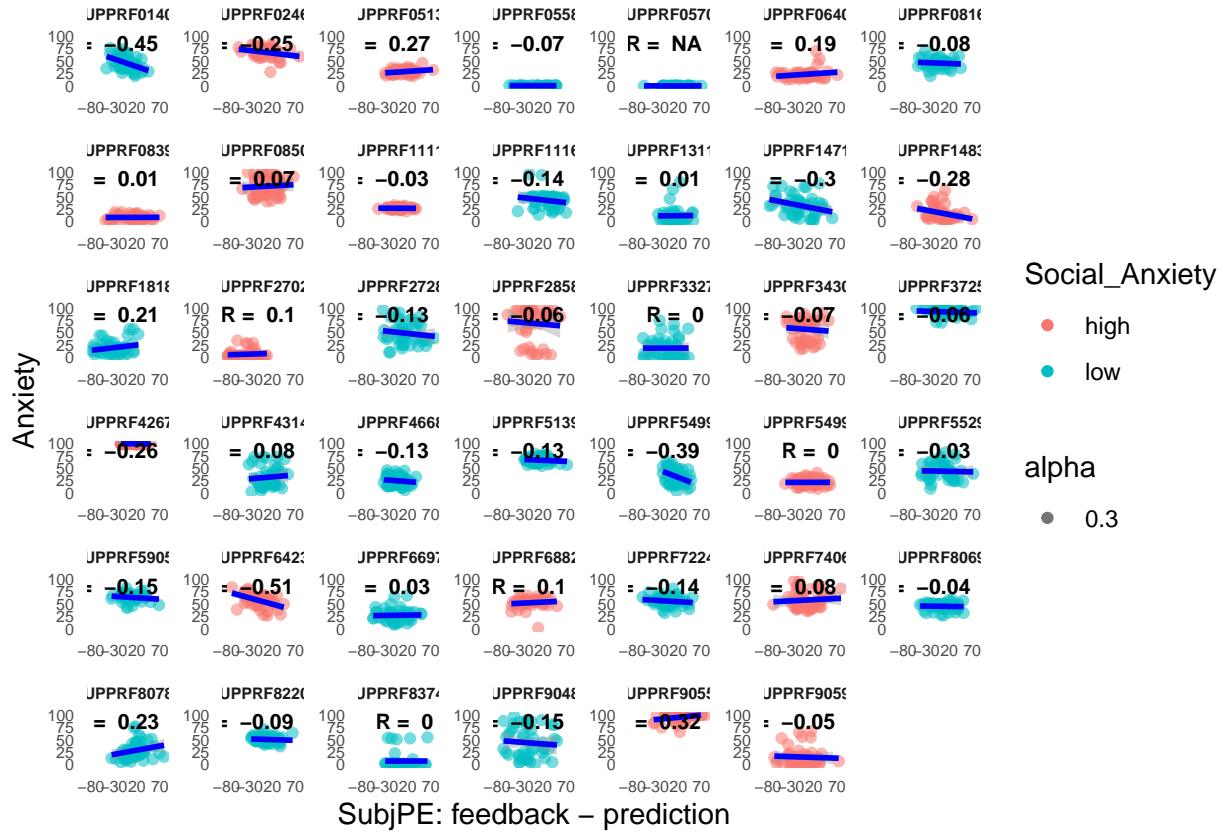
**Neutral PE:** we added -1, 0, 1 to the mean of the histograms

In this sample, only 17 people out of 41 had high social anxiety.

```
## # A tibble: 41 x 2
##   Random_ID   Trial.Number
##   <chr>         <int>
## 1 SUPPRF01407      48
## 2 SUPPRF02465      48
## 3 SUPPRF05137      48
## 4 SUPPRF05583      26
## 5 SUPPRF05702      48
## 6 SUPPRF06407      48
## 7 SUPPRF08160      39
## 8 SUPPRF08392      48
## 9 SUPPRF08503      48
## 10 SUPPRF11118      48
## # i 31 more rows
```

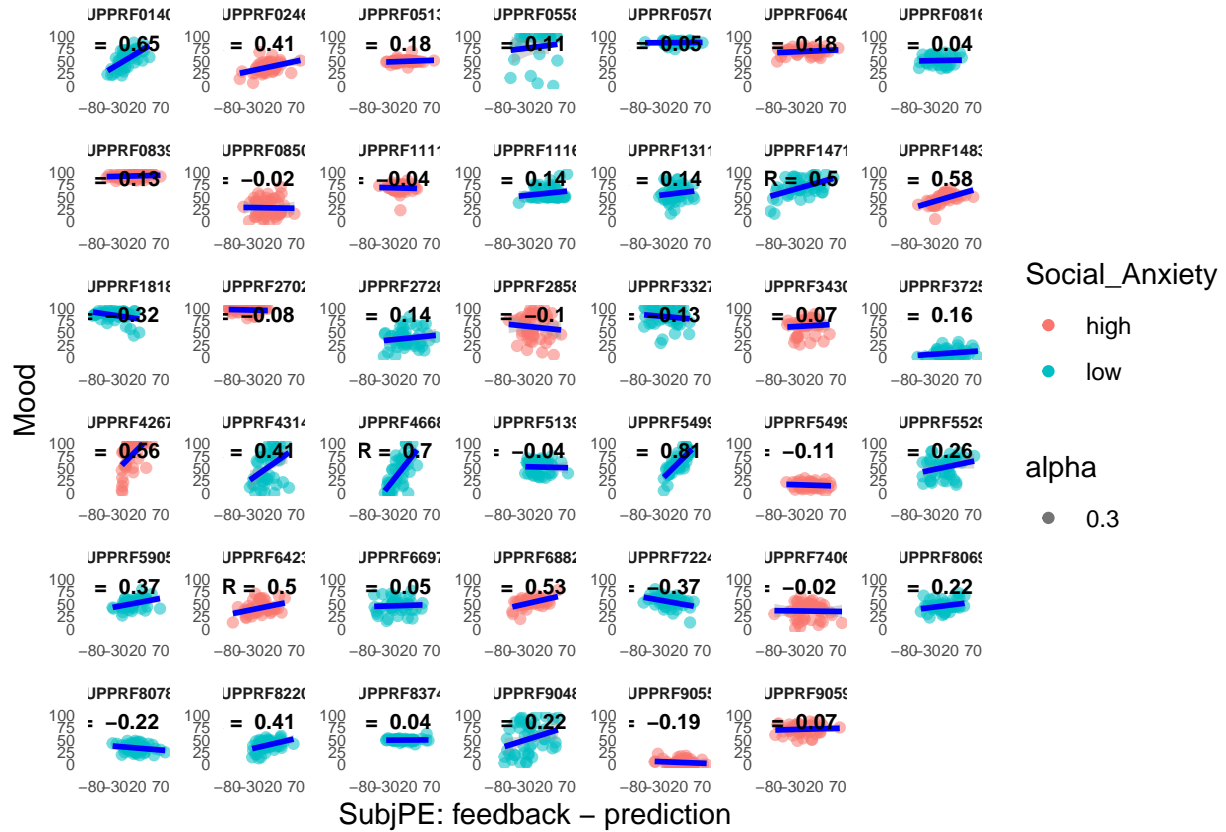
# Relationship between Anxiety and SubjPE

## [1] "average correlation between anxiety and SubjPE: -0.0570621407466249"



# Relationship between Mood and SubjPE

## [1] "average correlation between mood and SubjPE: 0.169860303615549"

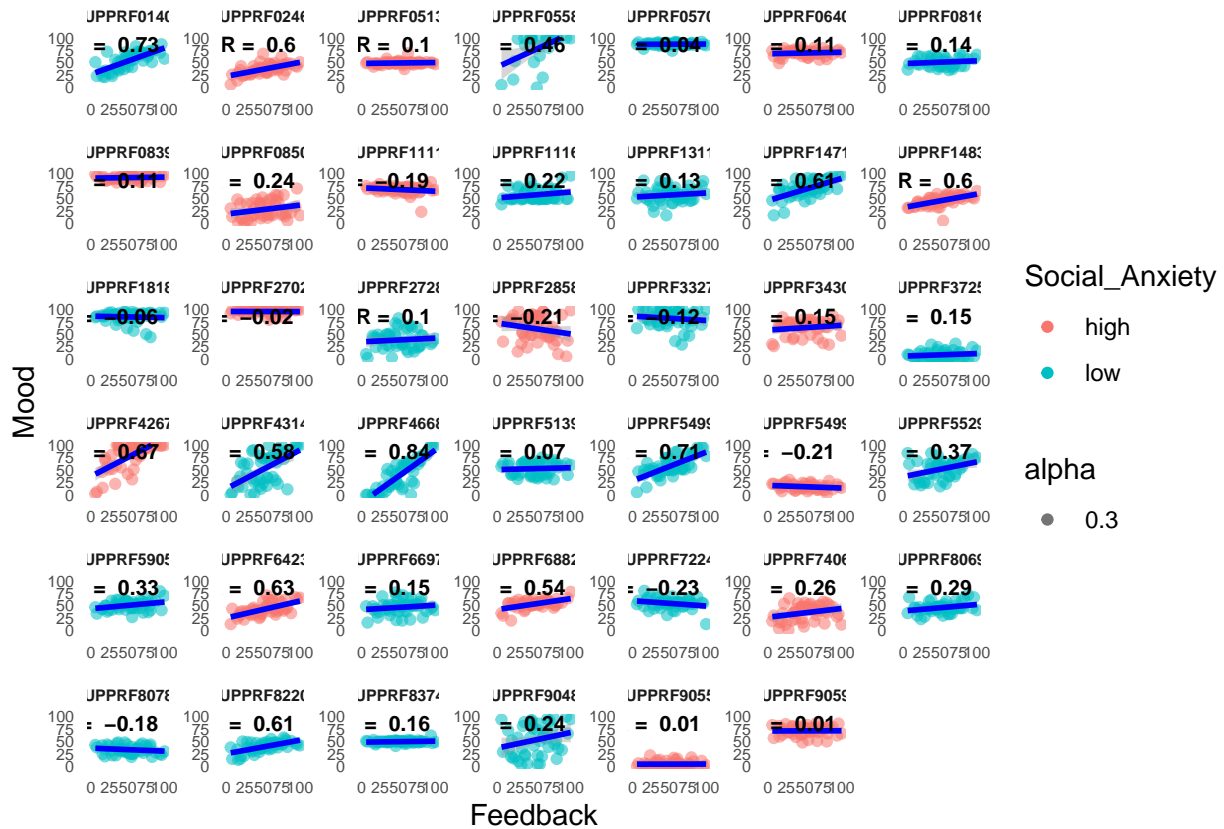


## Relationship between Mood and feedback

The relationship between mood and feedback seems to be stronger than mood and subjective PE (0.24 vs 0.17), so it seems people may care more about the feedback as receiving reward or punishment, rather than social PE? The relationship between subjective PE with both anxiety and mood has been the weakest across all pilots. We need to make sure it is only because of changing the pictures of virtual players, maybe by changing the narrative they would assume that the other players are also learning how to do public speaking (less intimidating than someone who is an expert?).

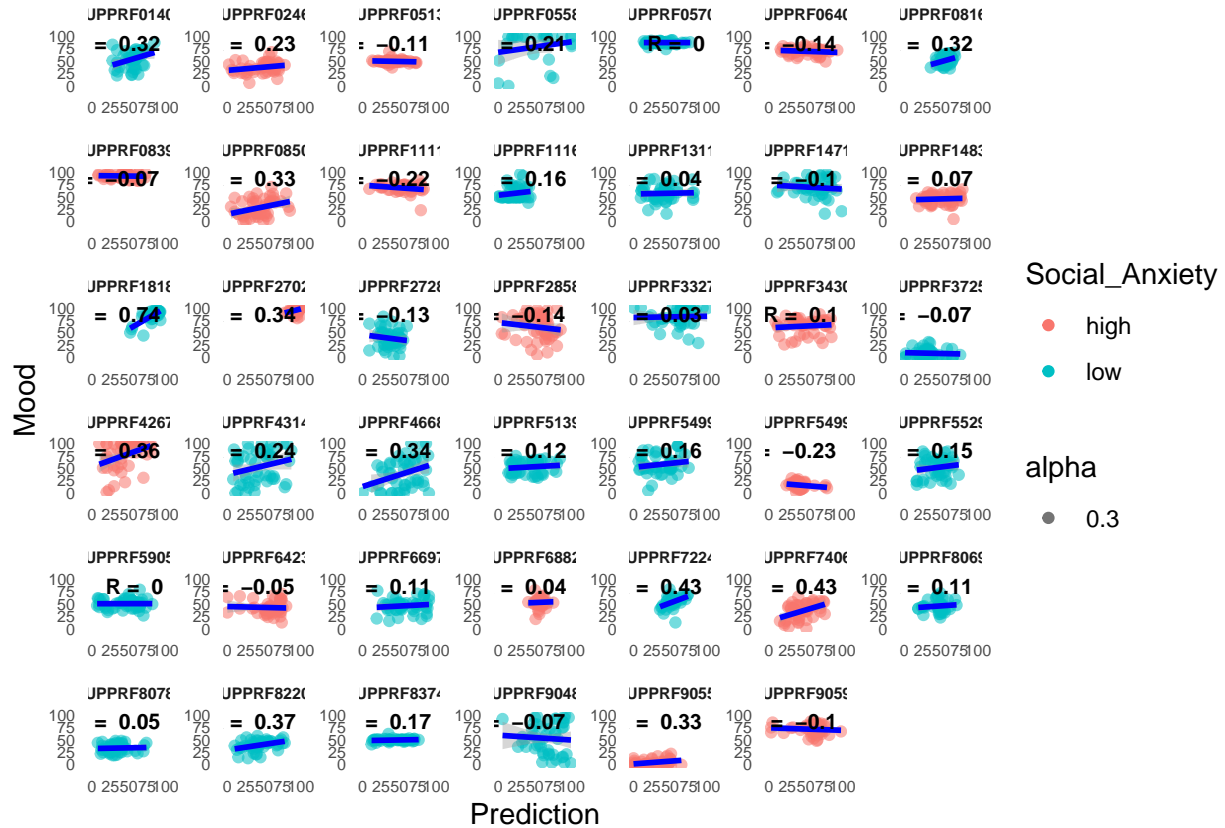
To be sure, I wonder if we want to repeat the pilot and just replace the images?

## [1] "average correlation between mood and feedback: 0.237770542807818"



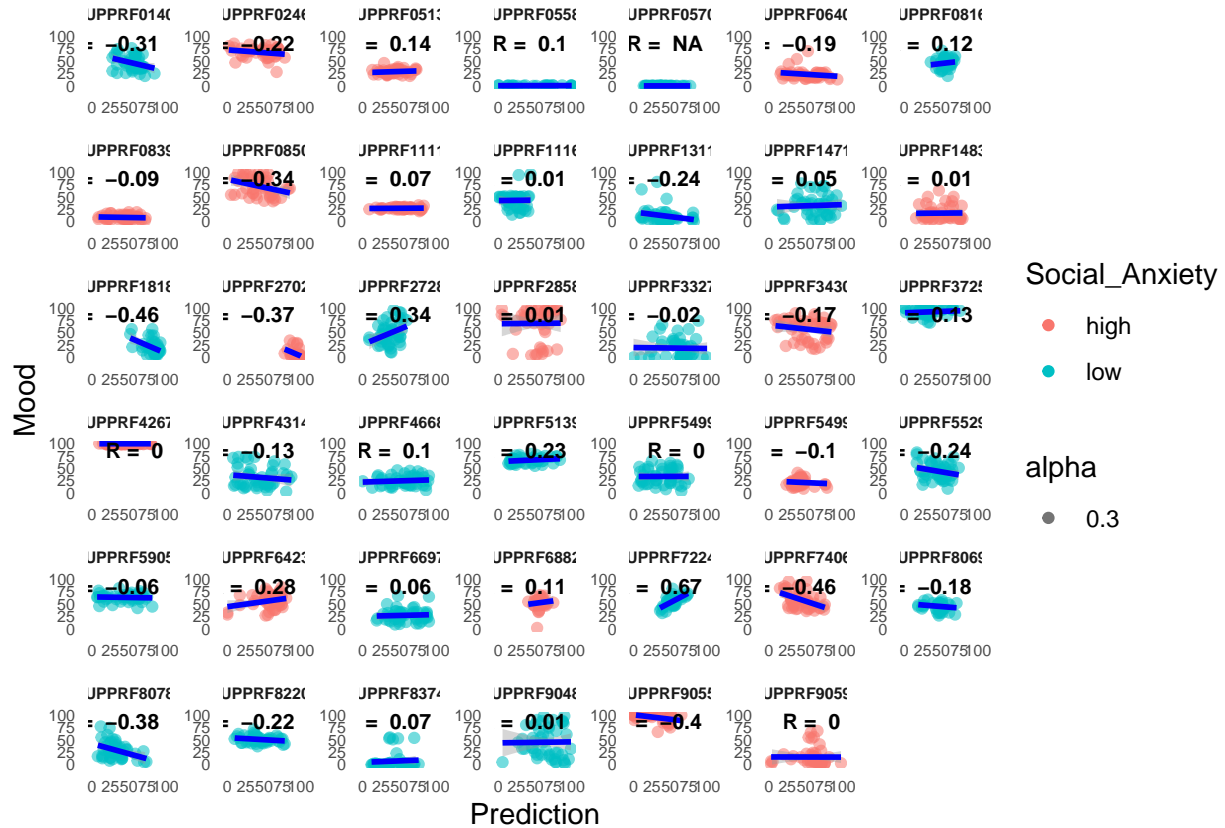
## Relationship between Mood and prediction

## [1] "average correlation between mood and prediction: 0.119584769789578"



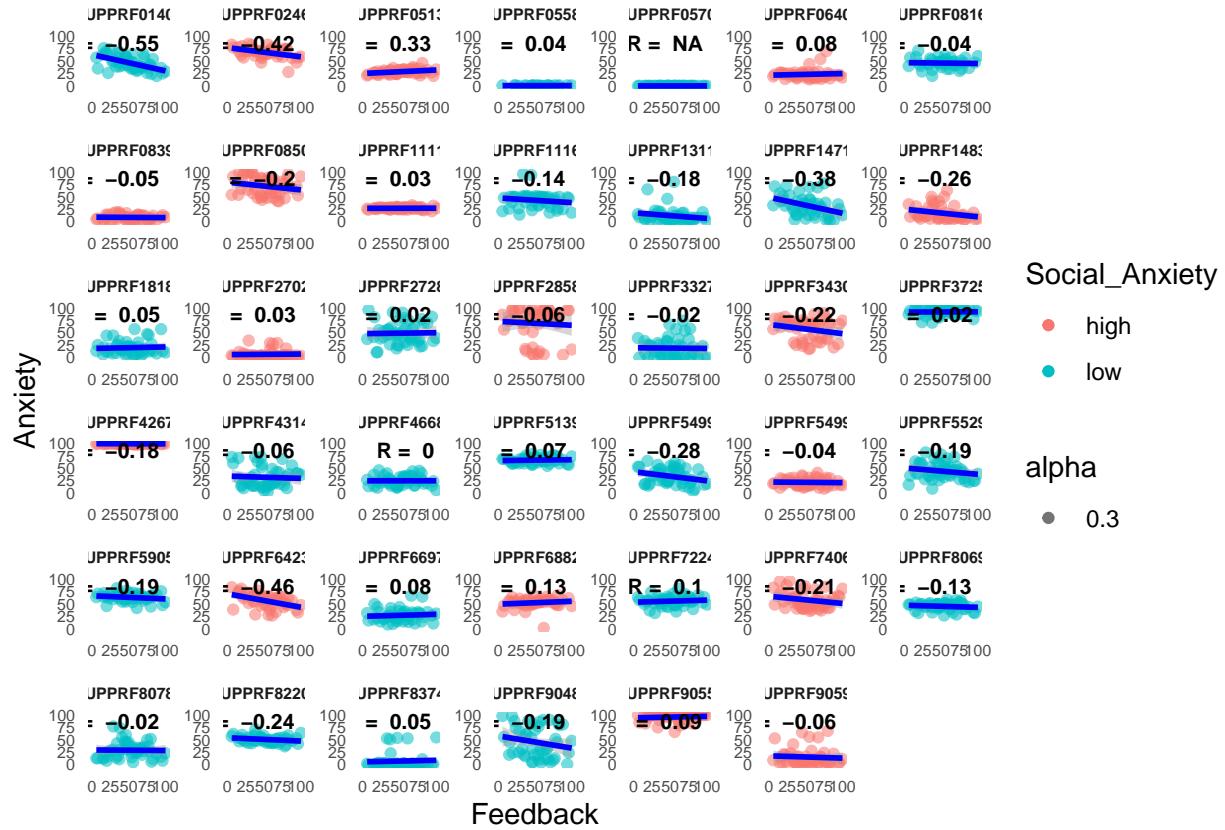
## Relationship between Anxiety and prediction

## [1] "average correlation between anxiety and prediction: -0.0520117558366197"



## Relationship between Anxiety and feedback

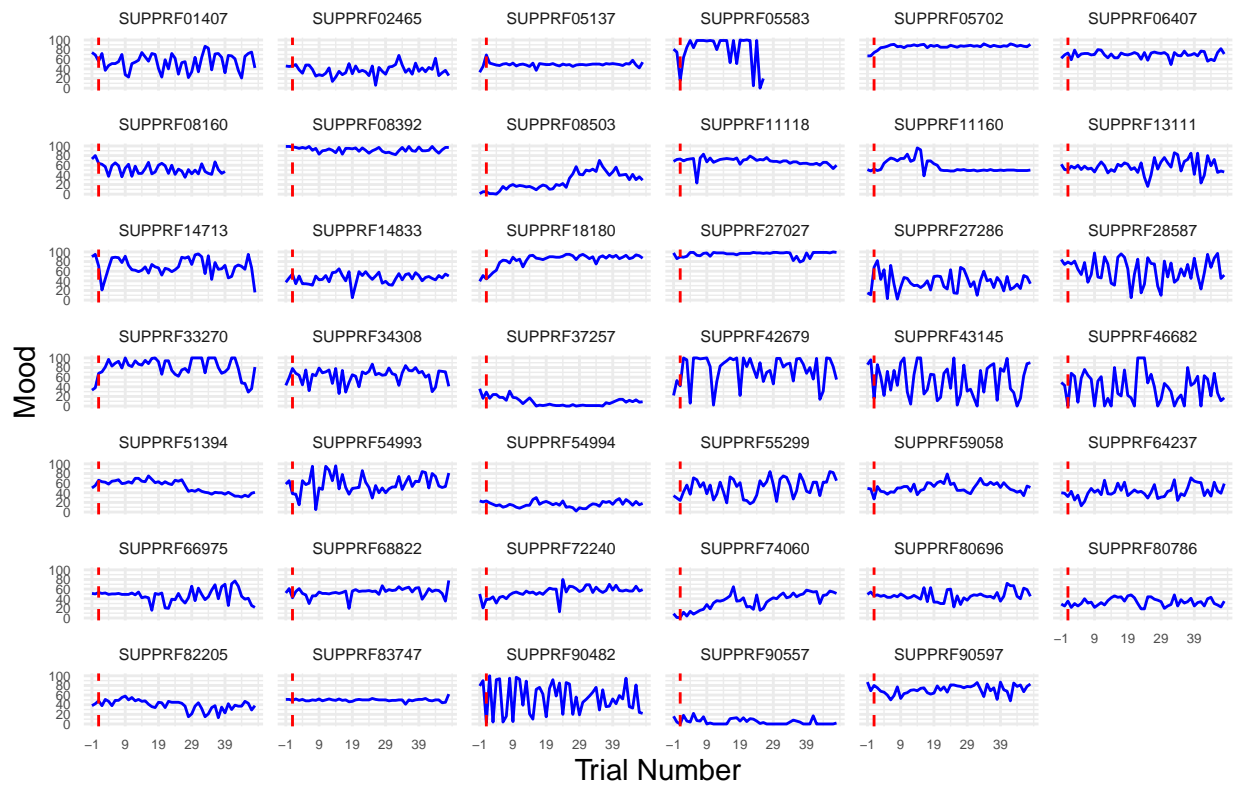
## [1] "average correlation between anxiety and feedback: -0.0912289783912545"





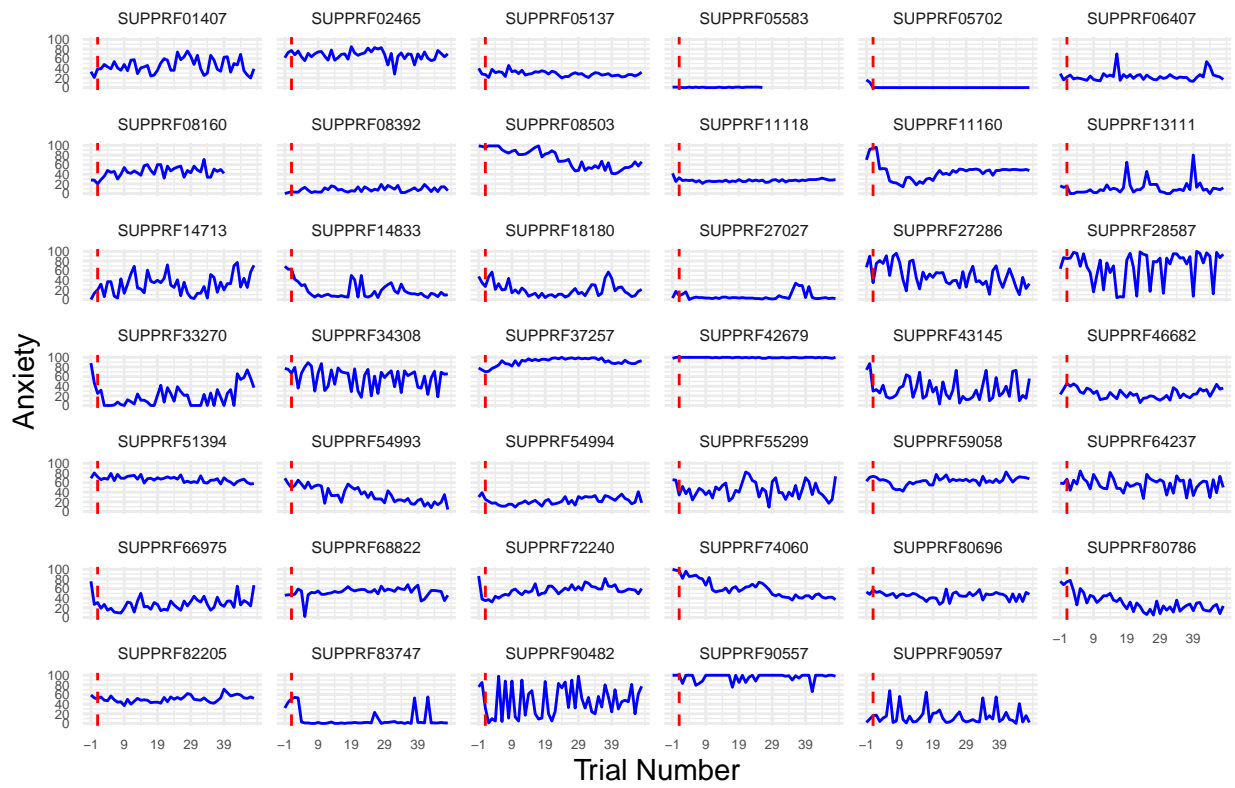
# Mood over time

## Mood across time



# Anxiety over time

## Anxiety across time



## Participants' feedback

In the feedback we received from people, some people mentioned they did not like being watched and some mentioned since they did not see the other person, they did not care and did not think they were real and did not influence how they felt. We did have a few people who mentioned “the observer” or “they” when trying to describe the virtual players. But overall, seeing how weaker the relationship is, I don't think having the cartoon images helps.

But since in this new pilot we have had several changes at once, shall we repeat the pilot with the new narrative but with the old pictures we had?