Eye-Tracking: Bias Test-Retest Stability

Jason Shumake

2/8/2018

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## Based on a sample size of 169
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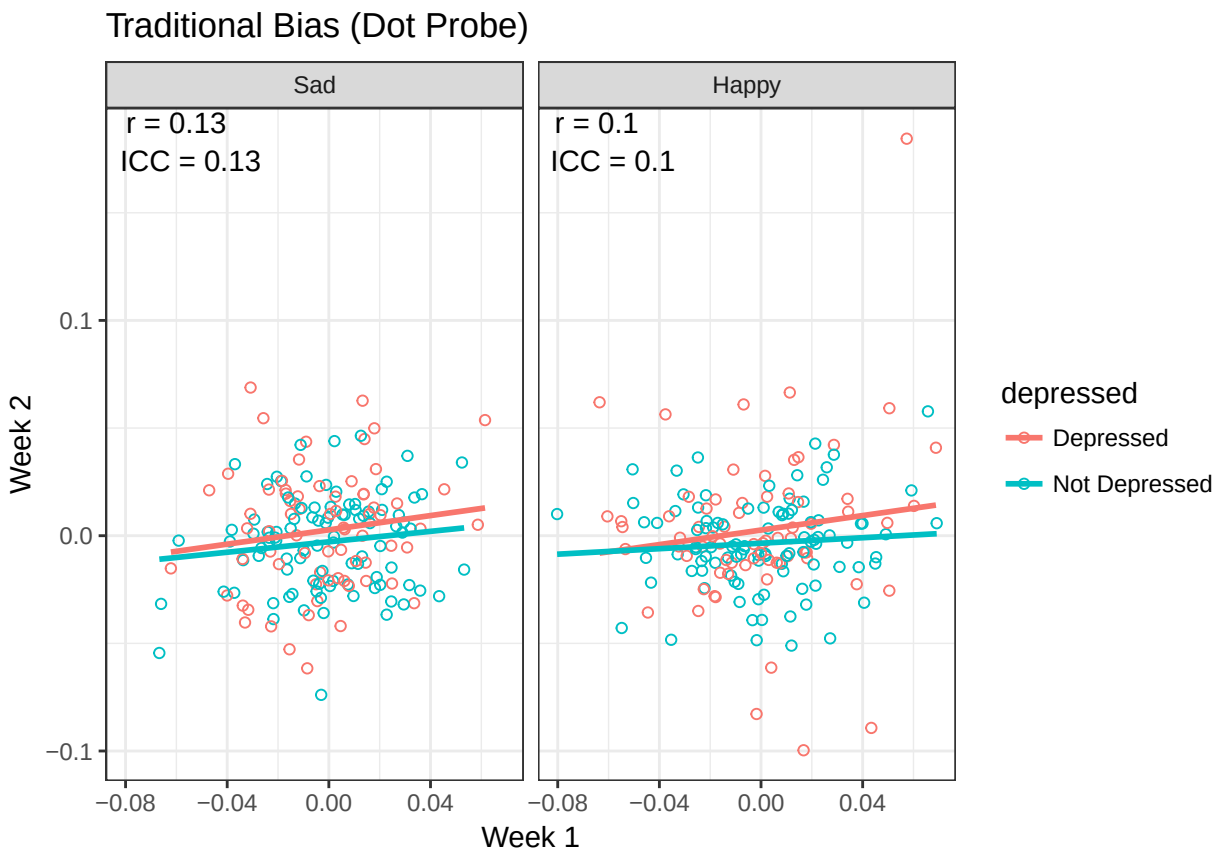
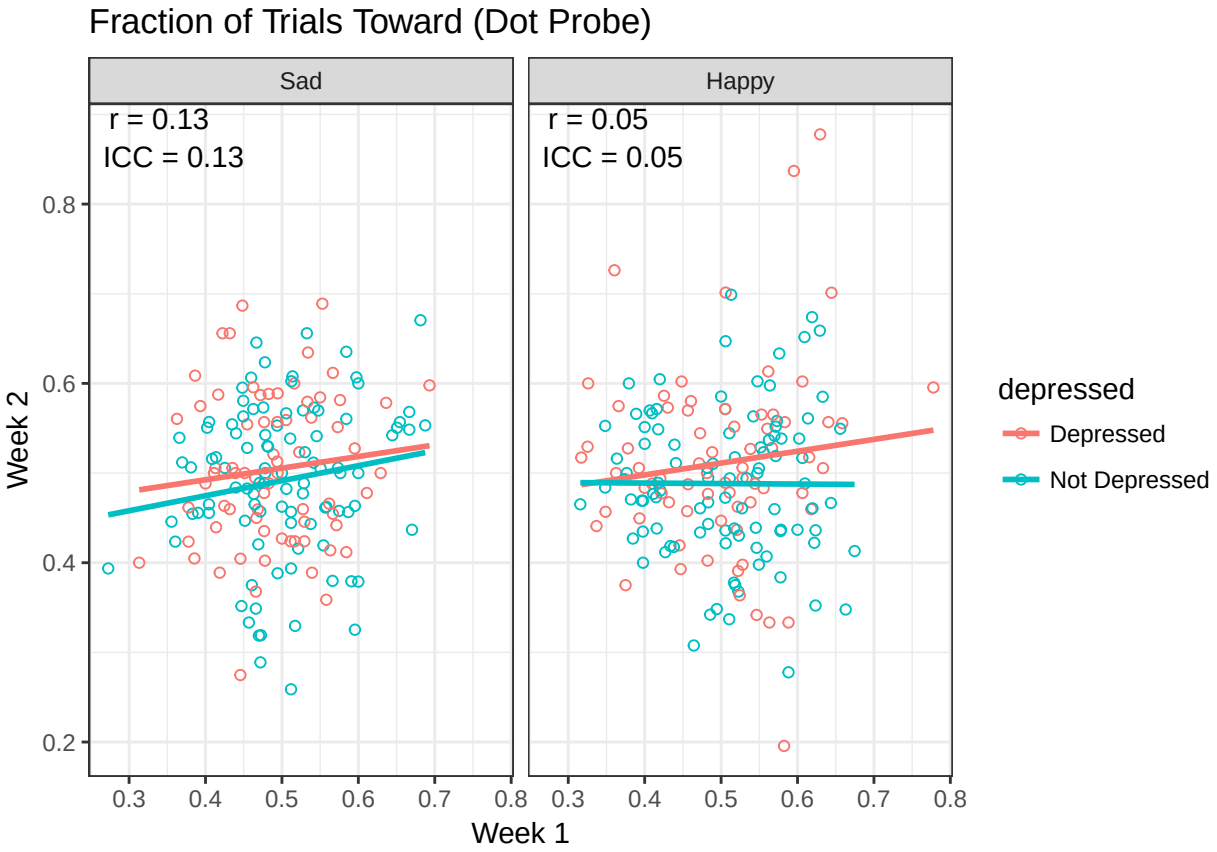
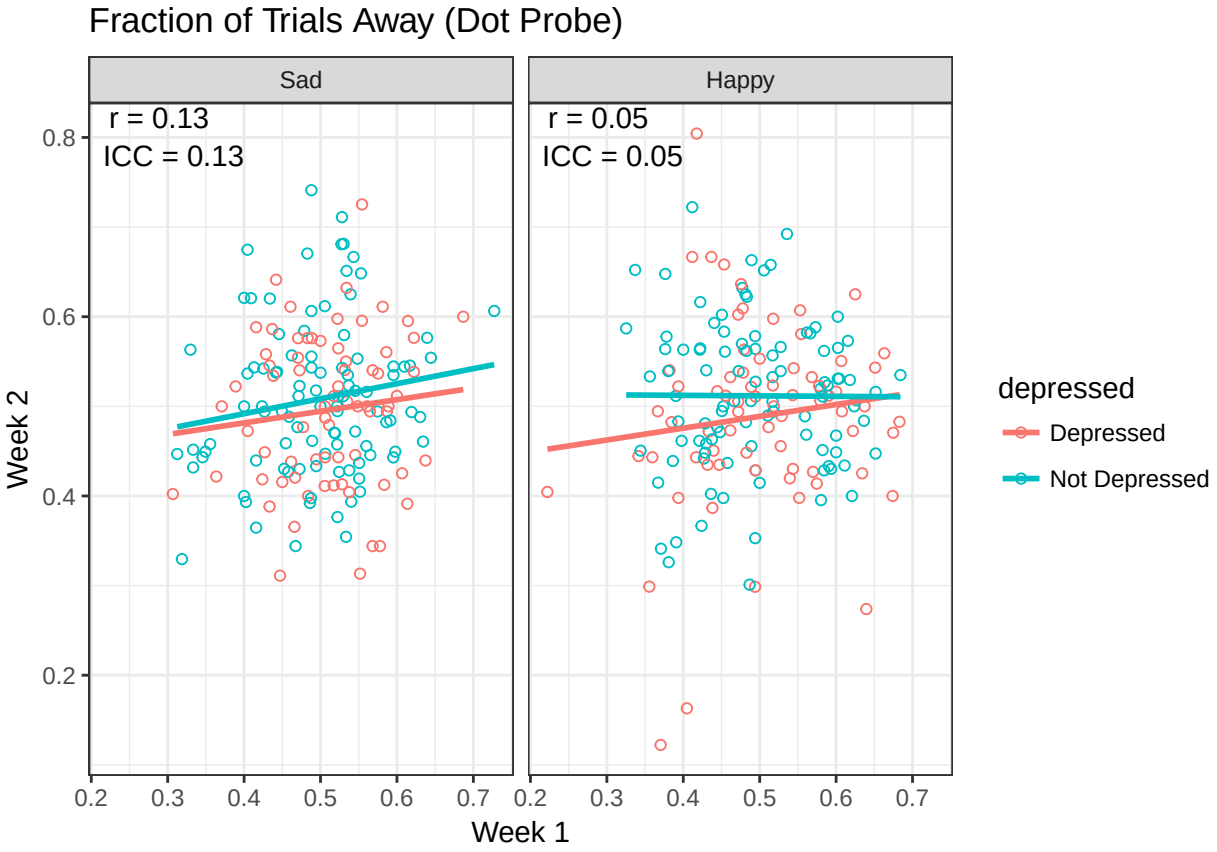
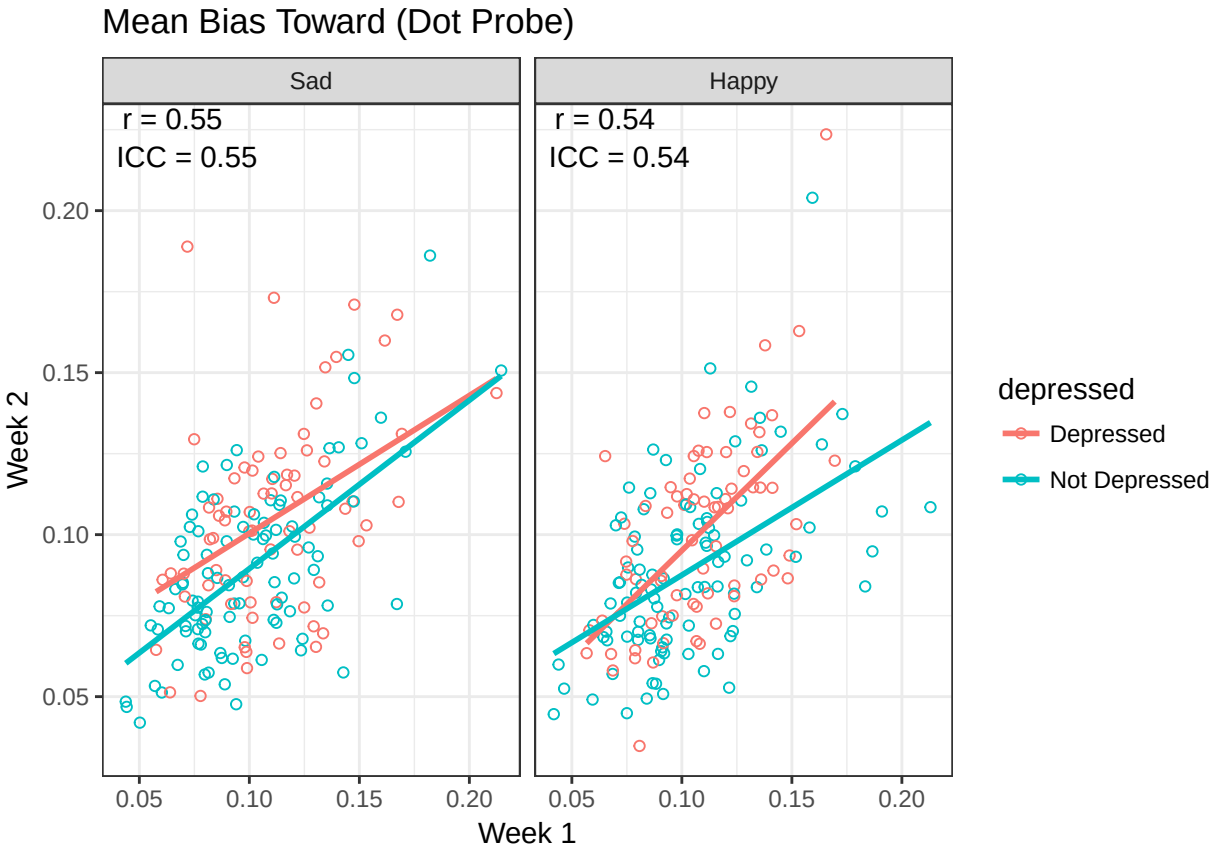
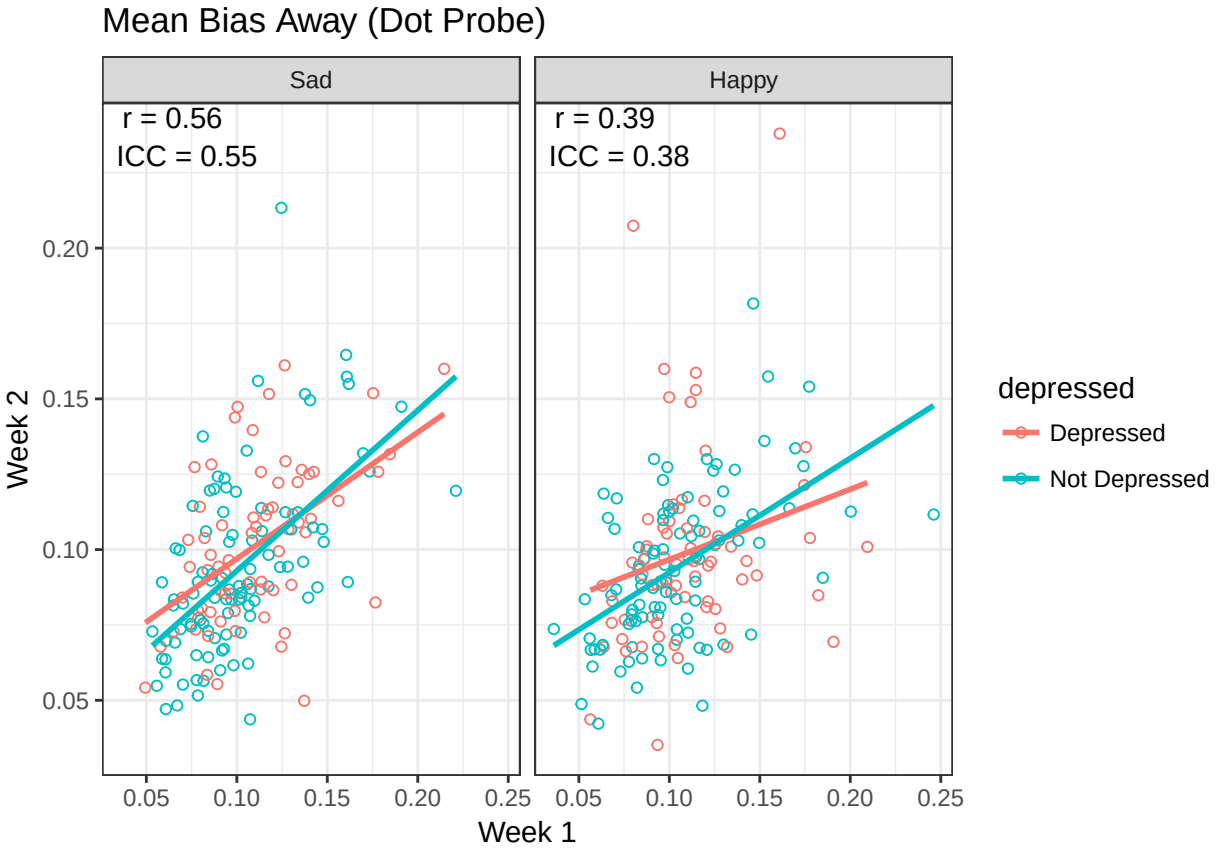
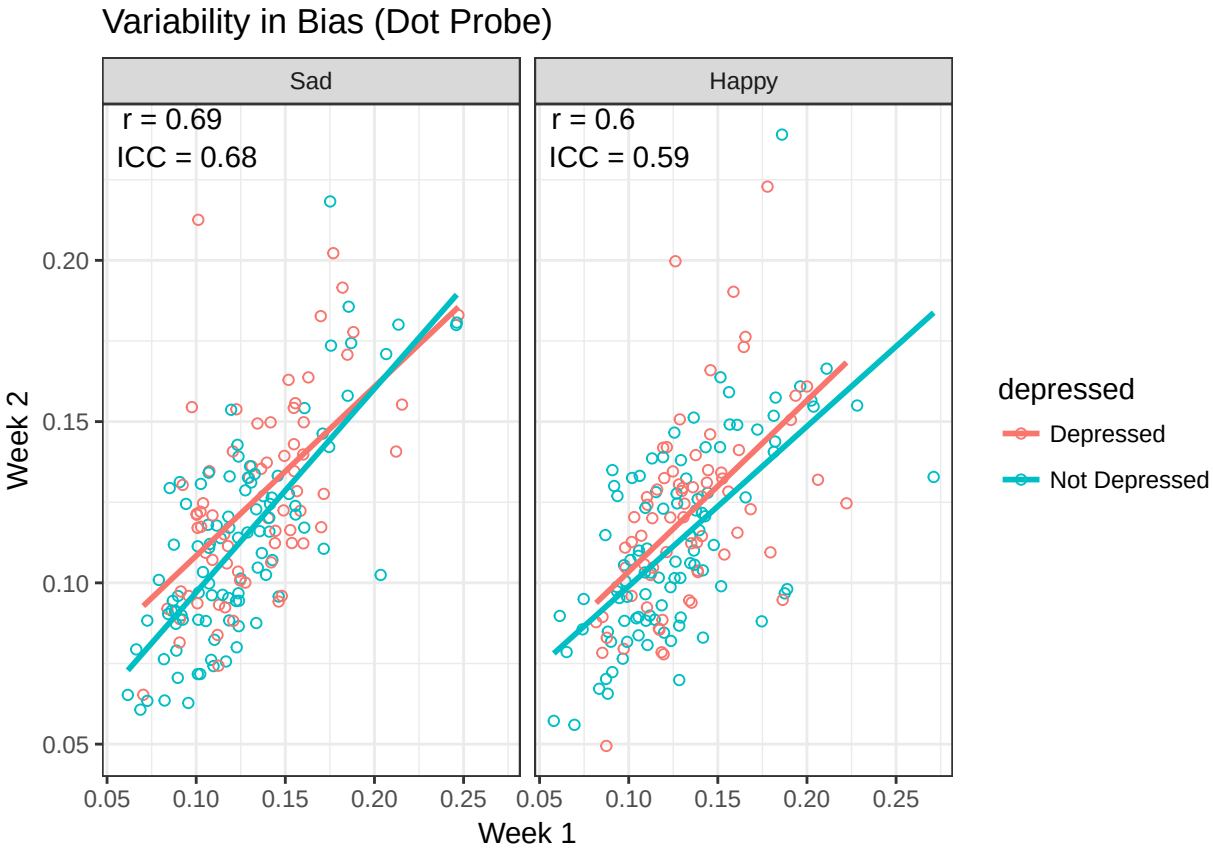


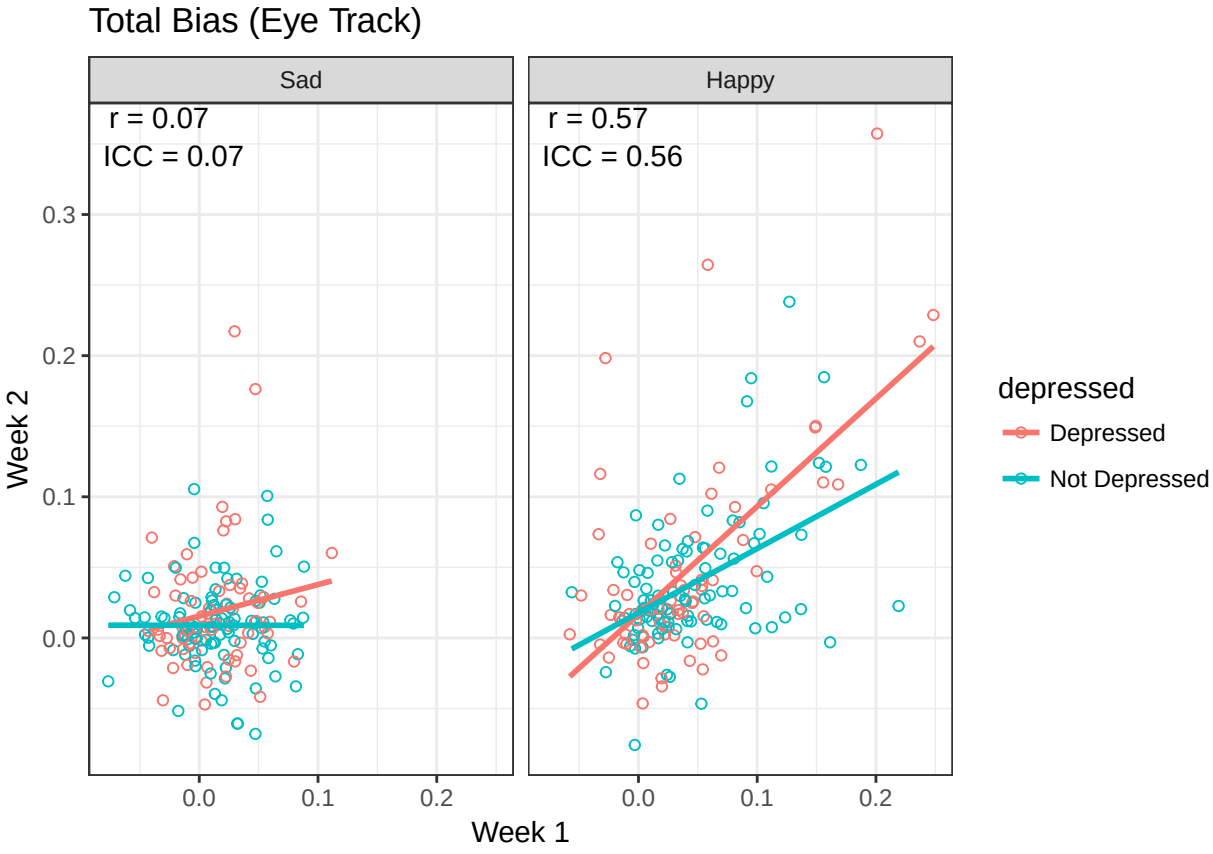

Fraction of Trials Toward (Dot Probe)
Sad
Happy
r = 0.13
ICC = 0.13
r = 0.05
ICC = 0.05
Week 2
Week 1
depressed
Depressed
Not Depressed

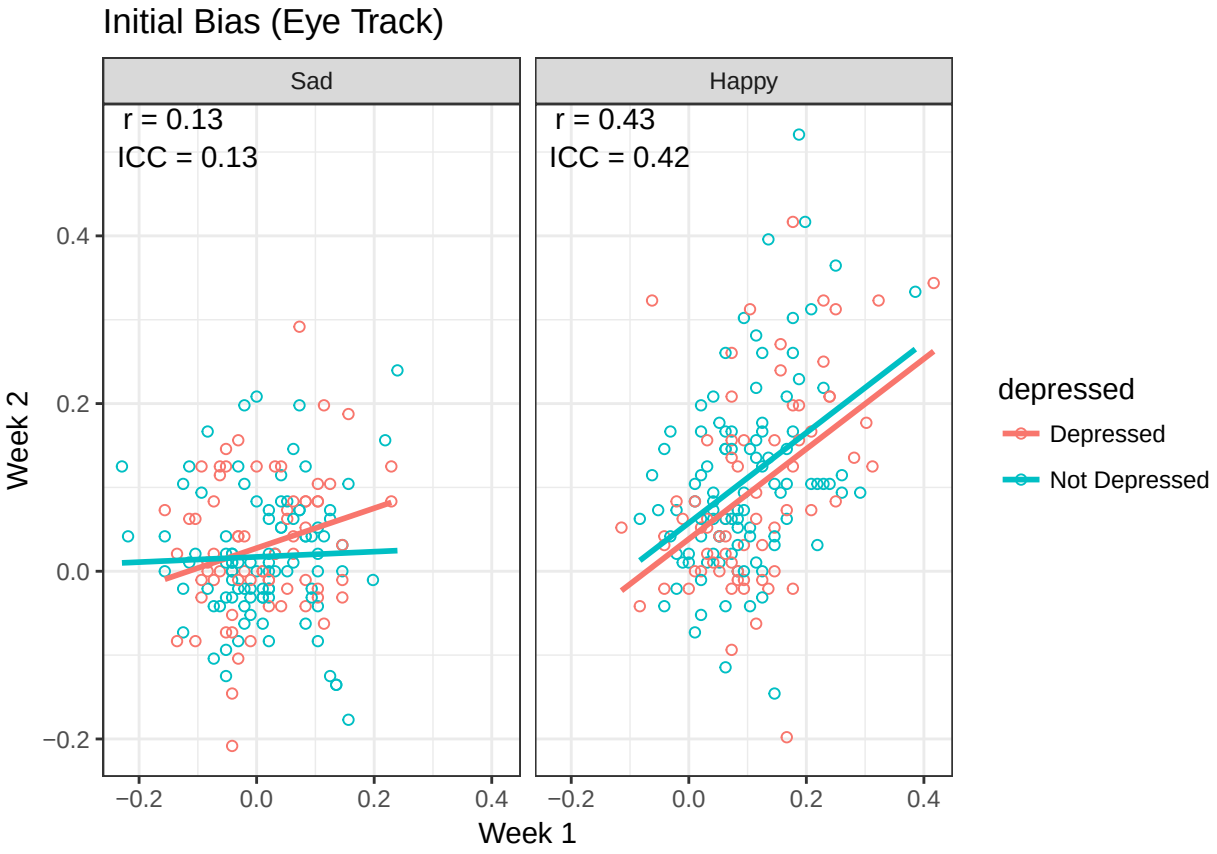

Fraction of Trials Away (Dot Probe)
Sad
Happy
r = 0.13
ICC = 0.13
r = 0.05
ICC = 0.05
Week 2
Week 1
depressed
Depressed
Not Depressed

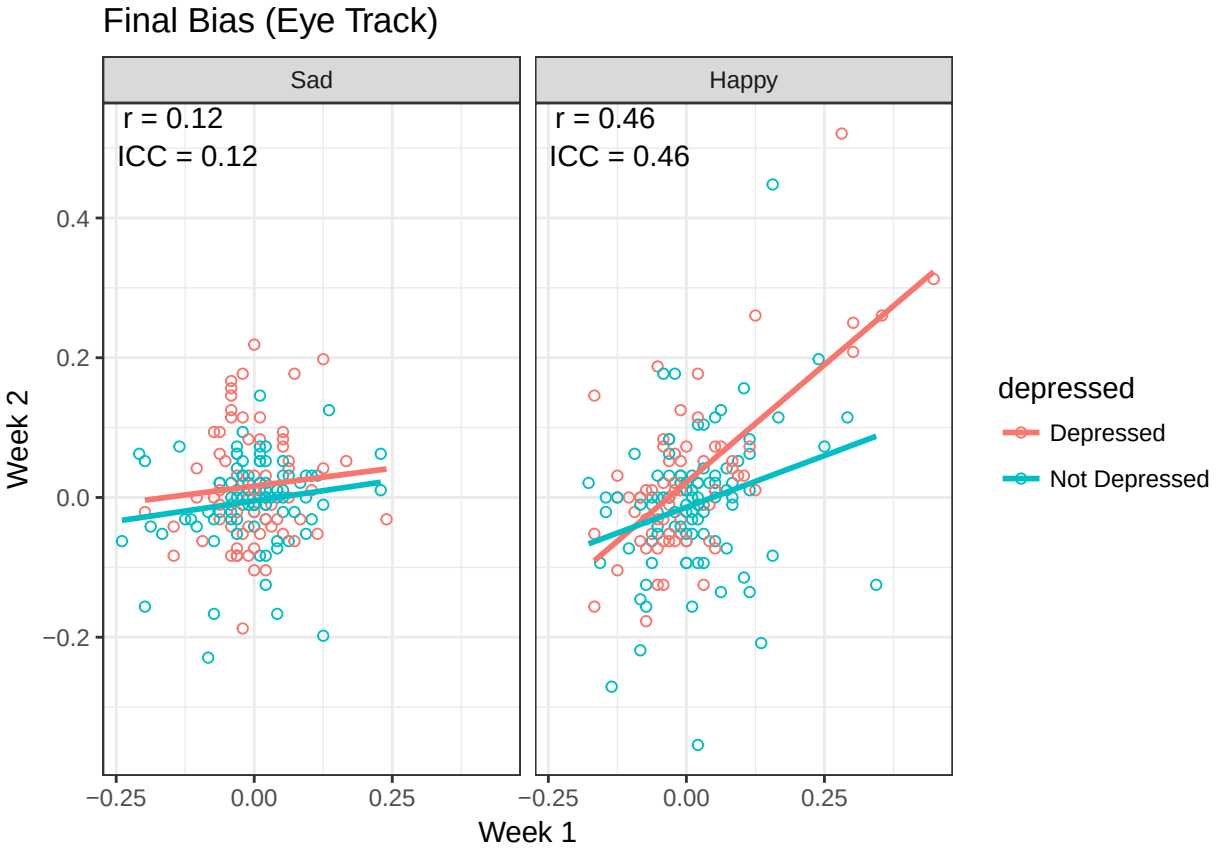

Mean Bias Toward (Dot Probe)
Sad
Happy
r = 0.55
ICC = 0.55
r = 0.54
ICC = 0.54
Week 2
Week 1
0.05
0.10
0.15
0.20
depressed
Depressed
Not Depressed

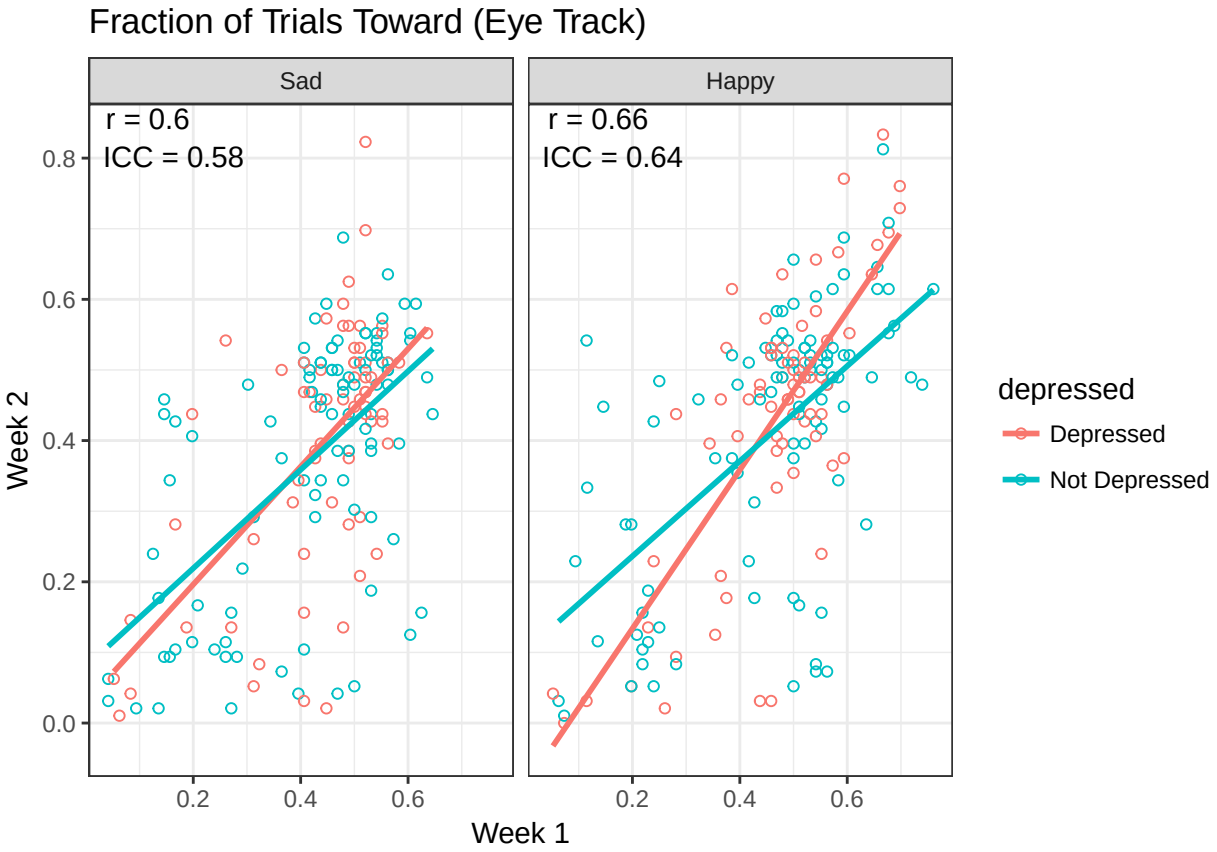

Mean Bias Away (Dot Probe)
Sad
Happy
r = 0.56
ICC = 0.55
r = 0.39
ICC = 0.38
Week 2
Week 1
0.05
0.10
0.15
0.20
0.25
depressed
Depressed
Not Depressed

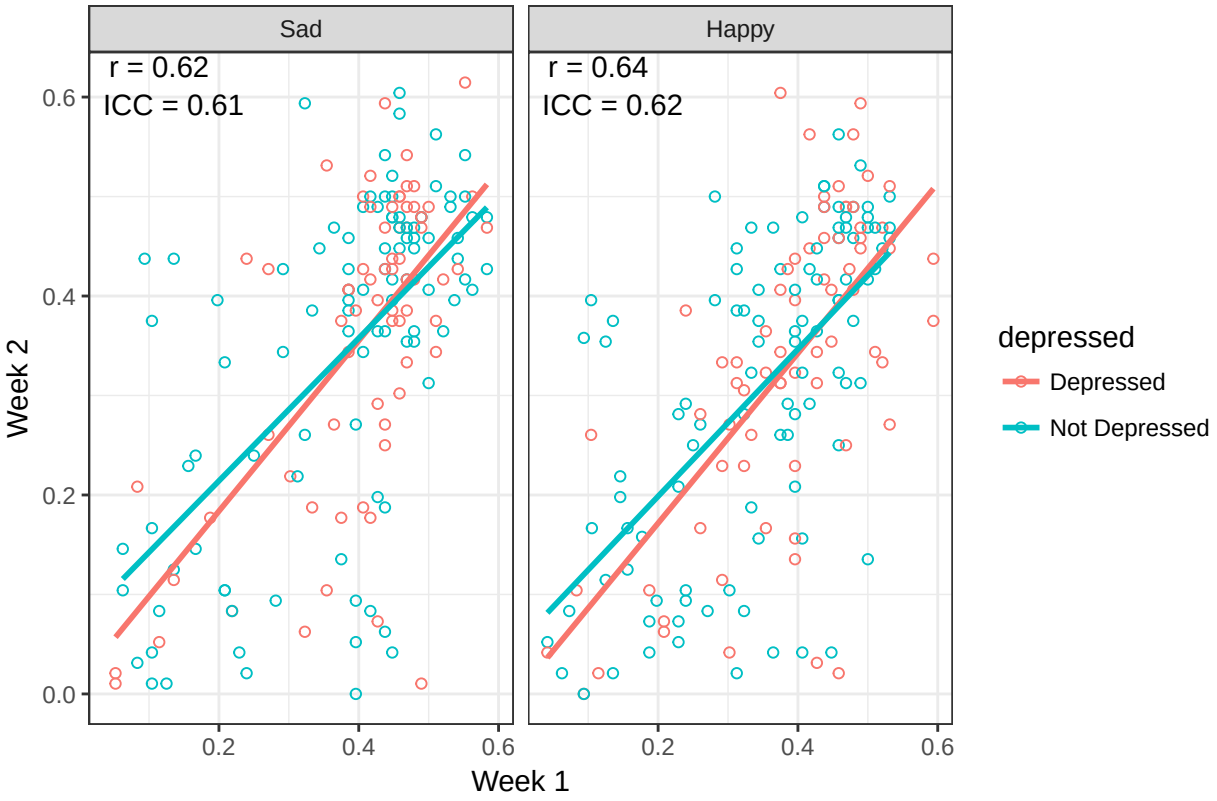

Variability in Bias (Dot Probe)
Sad
Happy
r = 0.69
ICC = 0.68
r = 0.6
ICC = 0.59
Week 2
Week 1
0.05
0.10
0.15
0.20
0.25
depressed
Depressed
Not Depressed

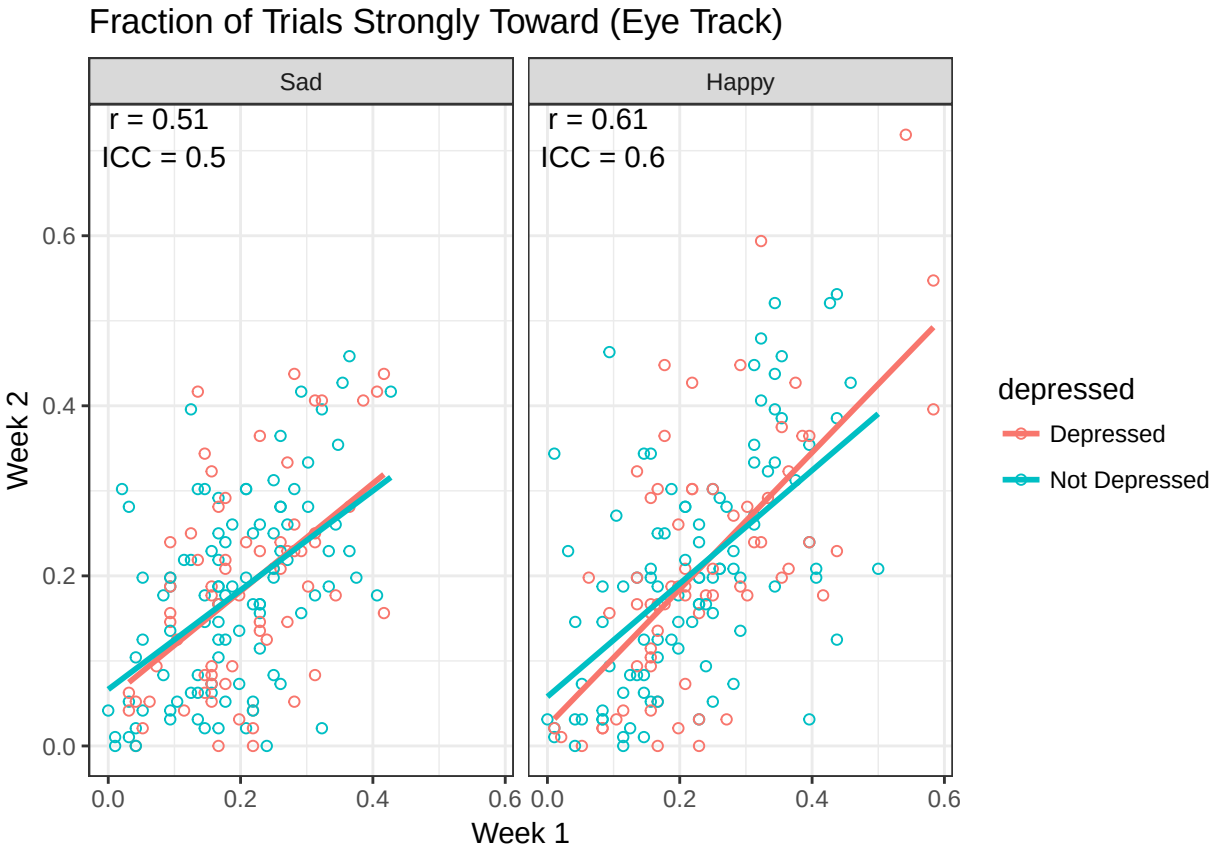

Total Bias (Eye Track)
Sad
Happy
r = 0.07
ICC = 0.07
r = 0.57
ICC = 0.56
Week 2
Week 1
0.0
0.1
0.2
0.3
depressed
Depressed
Not Depressed

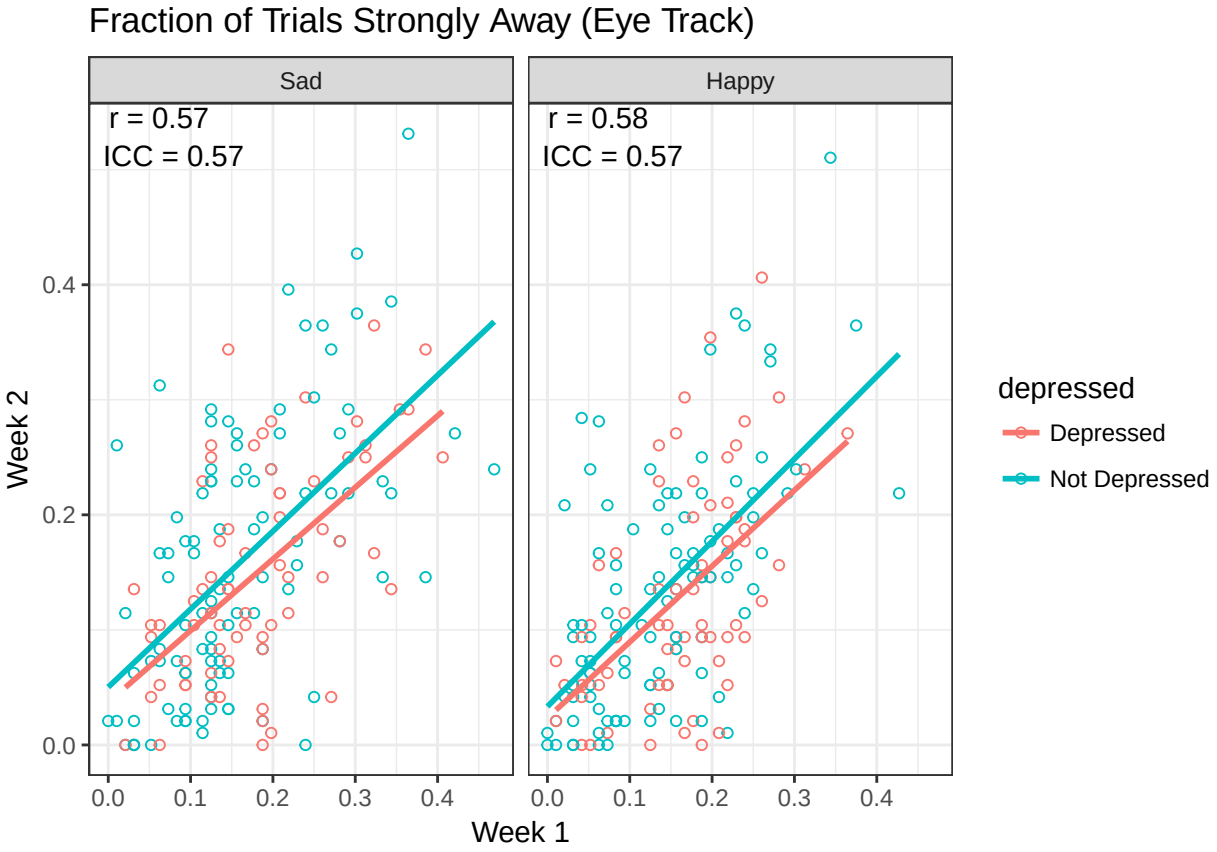

Initial Bias (Eye Track)
Sad
Happy
r = 0.13
ICC = 0.13
r = 0.43
ICC = 0.42
Week 2
Week 1
depressed
Depressed
Not Depressed

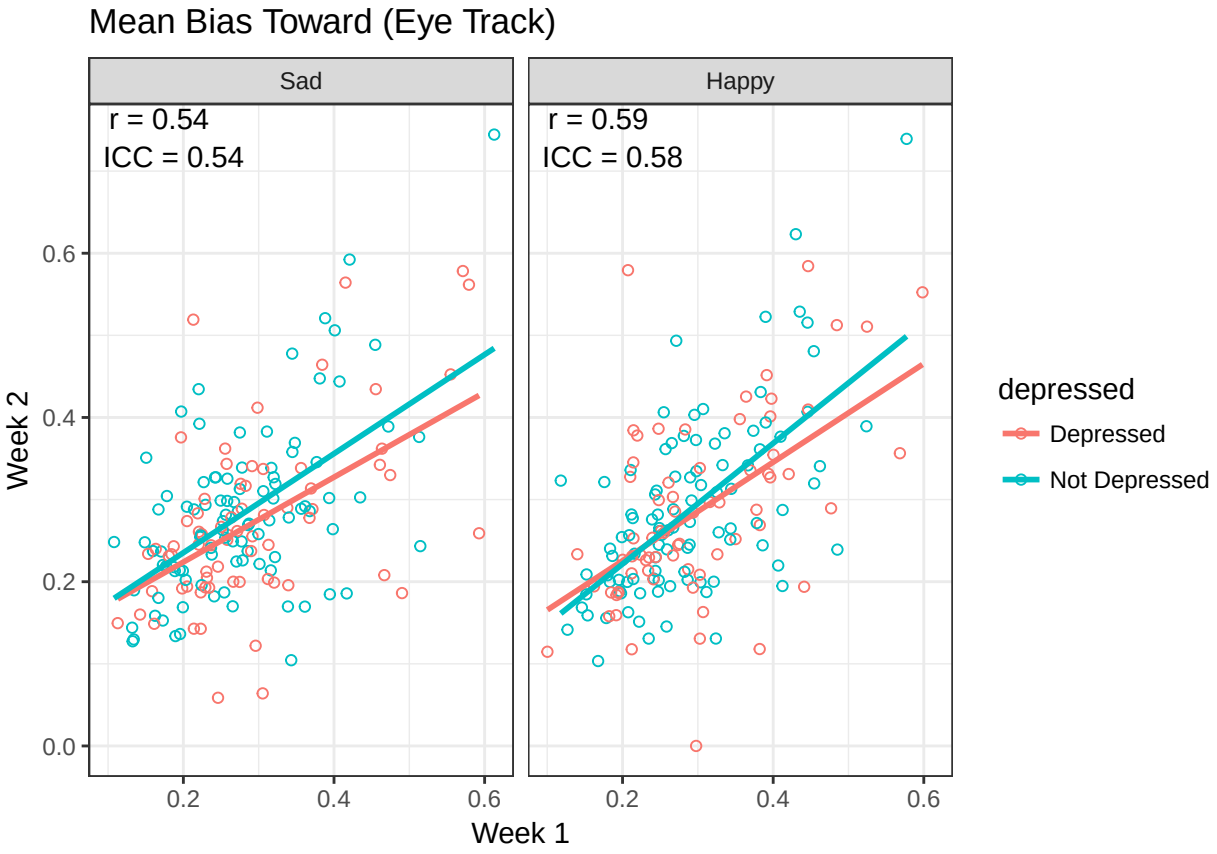

Final Bias (Eye Track)
Sad
Happy
r = 0.12
ICC = 0.12
r = 0.46
ICC = 0.46
Week 2
Week 1
depressed
Depressed
Not Depressed

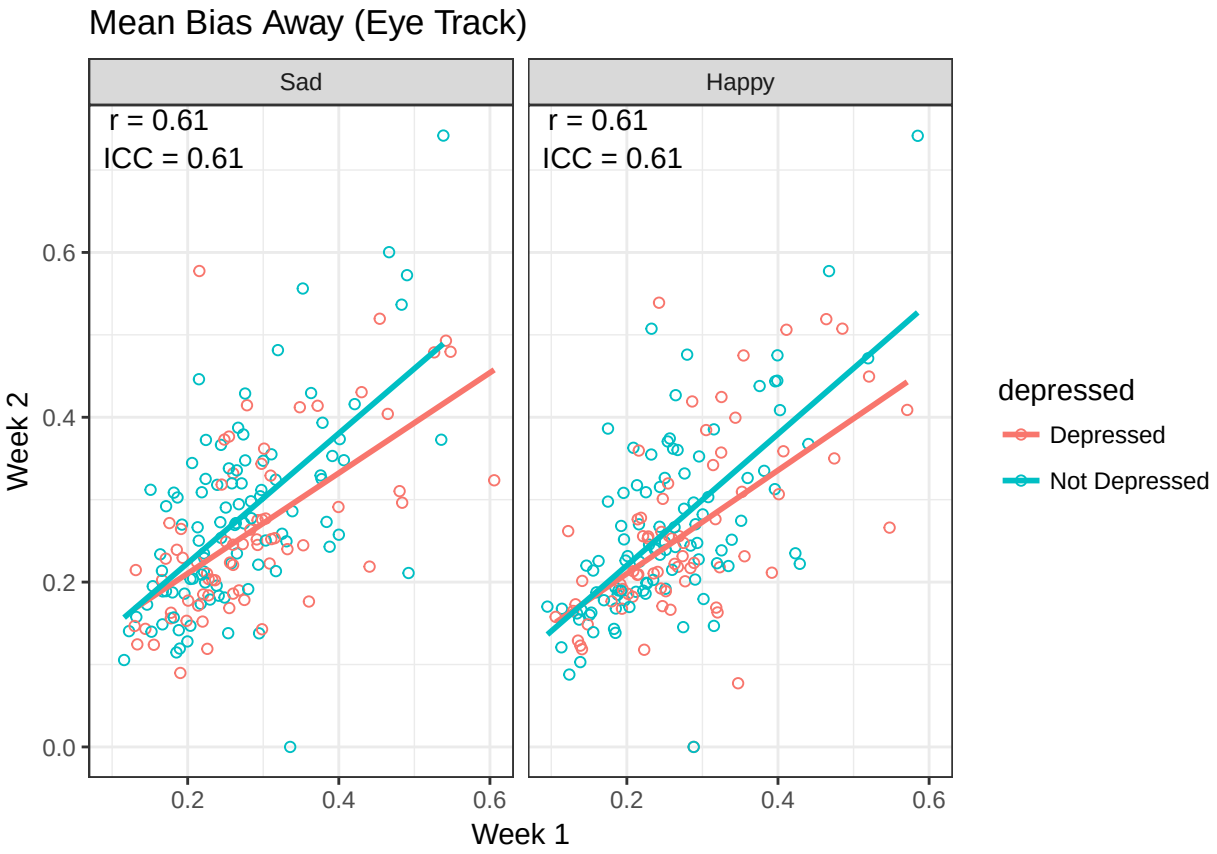

Fraction of Trials Toward (Eye Track)
Sad
Happy
r = 0.6
ICC = 0.58
r = 0.66
ICC = 0.64
Week 2
Week 1
depressed
Depressed
Not Depressed

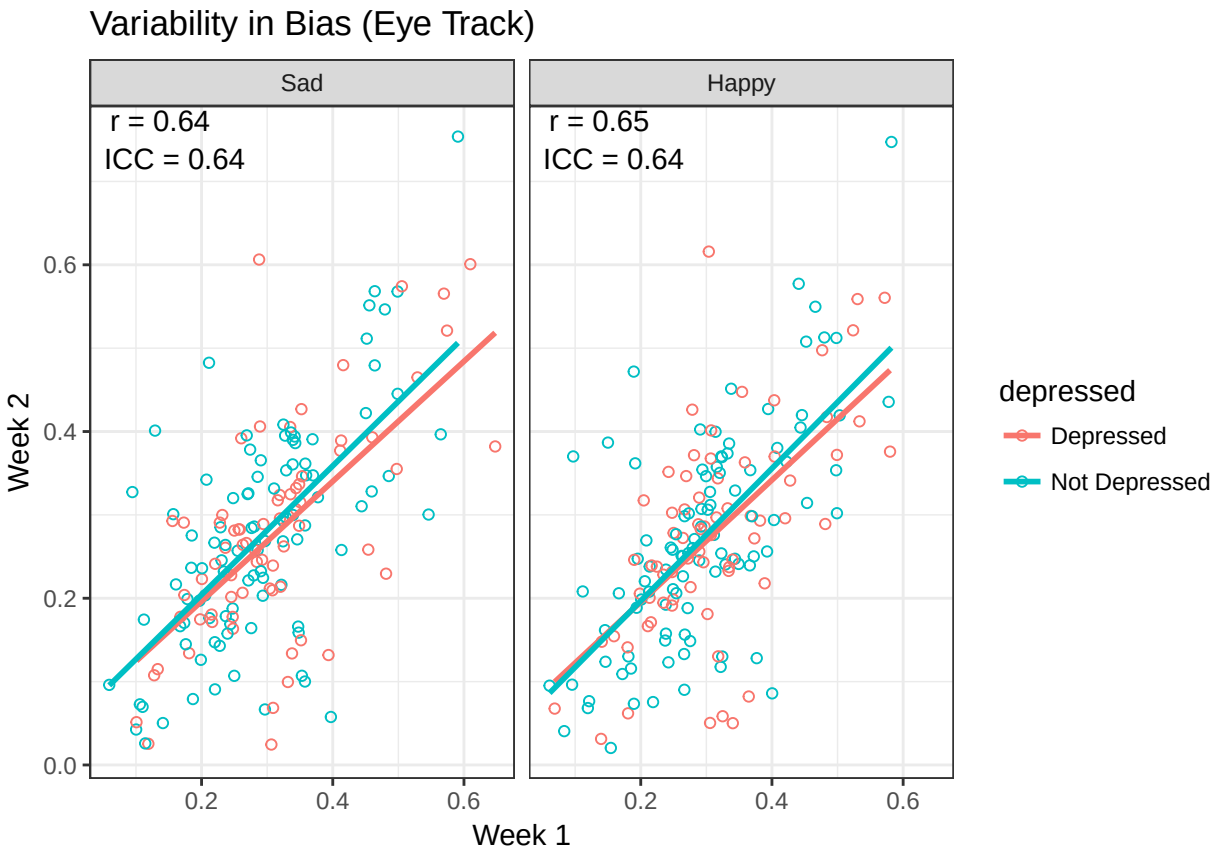

Fraction of Trials Away (Eye Track)
Sad
Happy
r = 0.62
ICC = 0.61
r = 0.64
ICC = 0.62
Week 2
Week 1
depressed
Depressed
Not Depressed


Fraction of Trials Strongly Toward (Eye Track)
Sad
Happy
r = 0.51
ICC = 0.5
r = 0.61
ICC = 0.6
Week 2
Week 1
0.0
0.2
0.4
0.6
depressed
Depressed
Not Depressed


Fraction of Trials Strongly Away (Eye Track)
Sad
Happy
r = 0.57
ICC = 0.57
r = 0.58
ICC = 0.57
Week 2
Week 1
0.0
0.1
0.2
0.3
0.4
depressed
Depressed
Not Depressed


Mean Bias Toward (Eye Track)
Sad
Happy
r = 0.54
ICC = 0.54
r = 0.59
ICC = 0.58
Week 2
Week 1
0.0
0.2
0.4
0.6
depressed
Depressed
Not Depressed


Mean Bias Away (Eye Track)
Sad
Happy
r = 0.61
ICC = 0.61
r = 0.61
ICC = 0.61
Week 2
Week 1
0.0
0.2
0.4
0.6
depressed
Depressed
Not Depressed




```
## Mean within-person correlation between TLBS (derived from dot probe)
## and trial-level fixation bias (derived from eye tracking):
##  0.12, 95% CI [0.1, 0.14]
```

```
##                        correlates    r   n     p
##  dp_bias_1 <-> final_gaze_bias_1 0.45 195 <.001
##        dp_bias_1 <-> gaze_bias_1 0.27 195 <.001
##   dp_bias_1 <-> init_gaze_bias_1 0.14 195  .106
```

```
##                                correlates     r   n     p
##   mean_dp_toward_1 <-> pct_gaze_toward_1  0.38 195 <.001
##  mean_dp_toward_1 <-> mean_gaze_toward_1  0.22 195  .007
##   pct_dp_toward_1 <-> mean_gaze_toward_1  0.13 195  .137
##    pct_dp_toward_1 <-> pct_gaze_toward_1 -0.05 195  .619
```

```
##                             correlates     r   n     p
##   mean_dp_away_1 <-> pct_gaze_away_1  0.32 195 <.001
##    pct_dp_away_1 <-> pct_gaze_away_1  0.14 195  .094
##  mean_dp_away_1 <-> mean_gaze_away_1  0.14 195  .095
##   pct_dp_away_1 <-> mean_gaze_away_1 -0.05 195  .579
```

```
##                          correlates    r   n     p
##  var_dp_bias_1 <-> var_gaze_bias_1 0.33 195 <.001
```