

Error Checks per Individual Participant

Raphael Q. Gastrock

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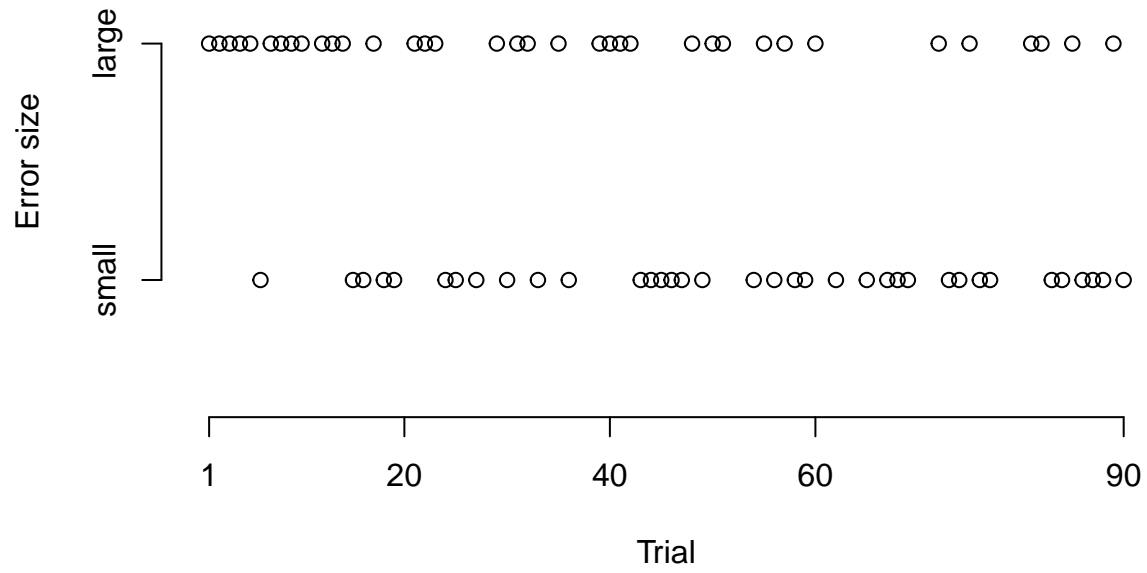
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```
source('ana/shared.R')  
source('ana/learningRates.R')  
source('ana/errorChecks.R')
```

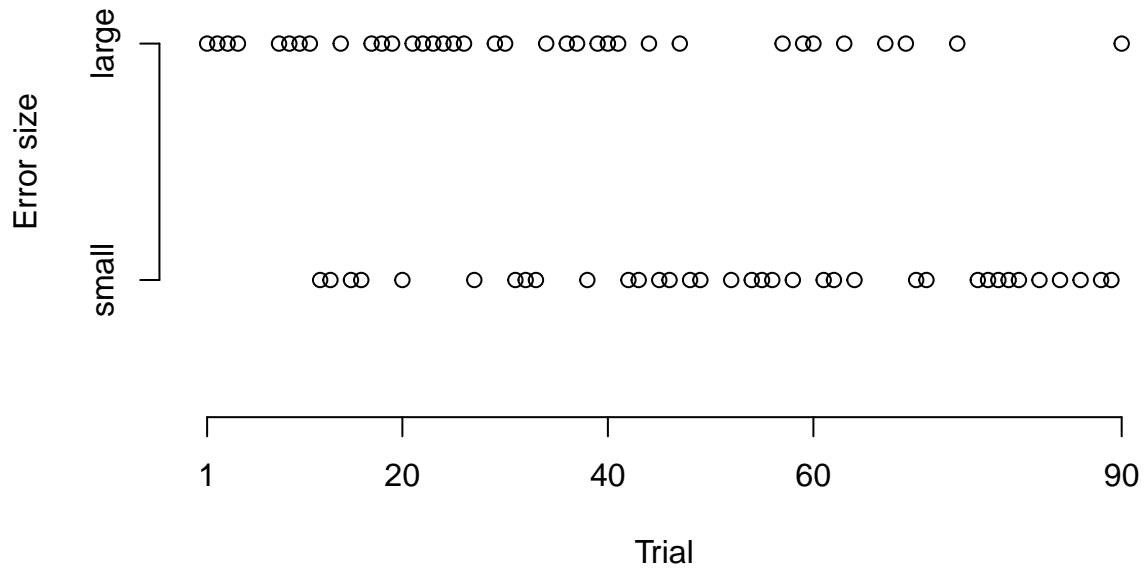
Trial indices for small and large errors: Fixed Rotation

```
getROTErrIndices()
```

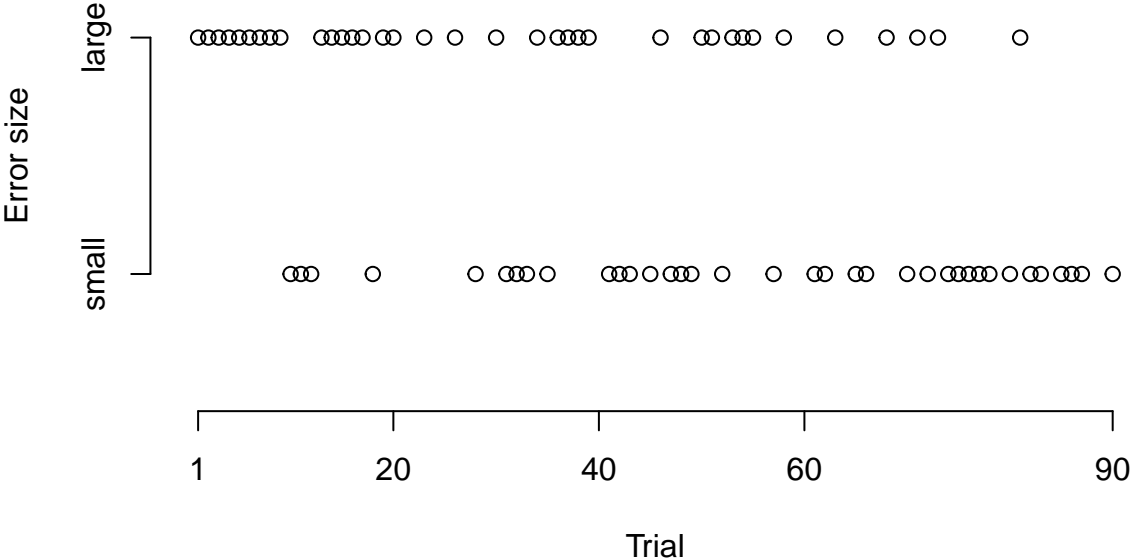
Rotation Errors across trials: Participant 0



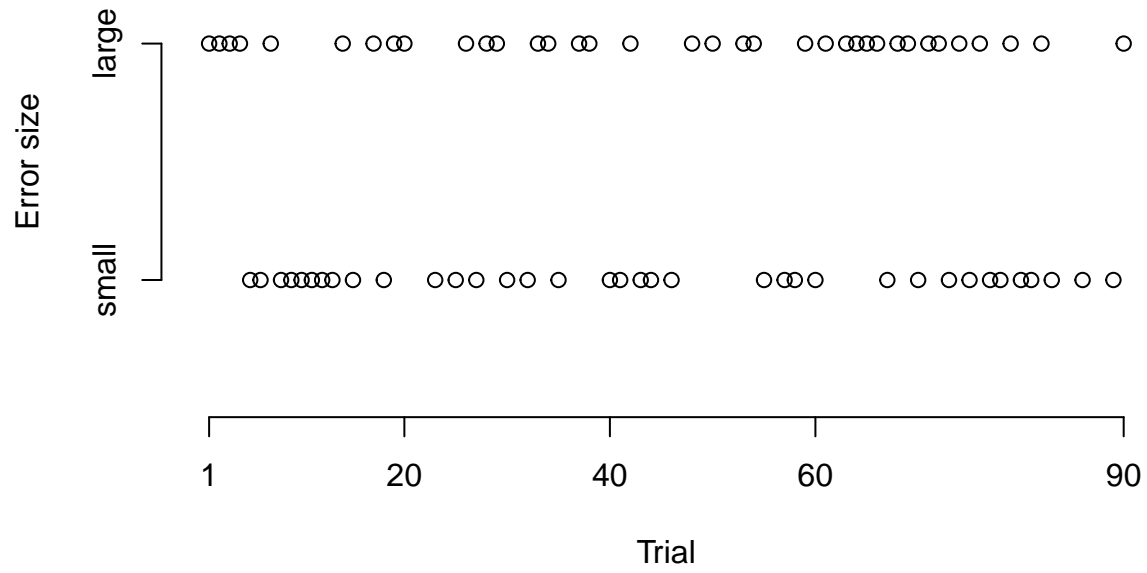
Rotation Errors across trials: Participant 1



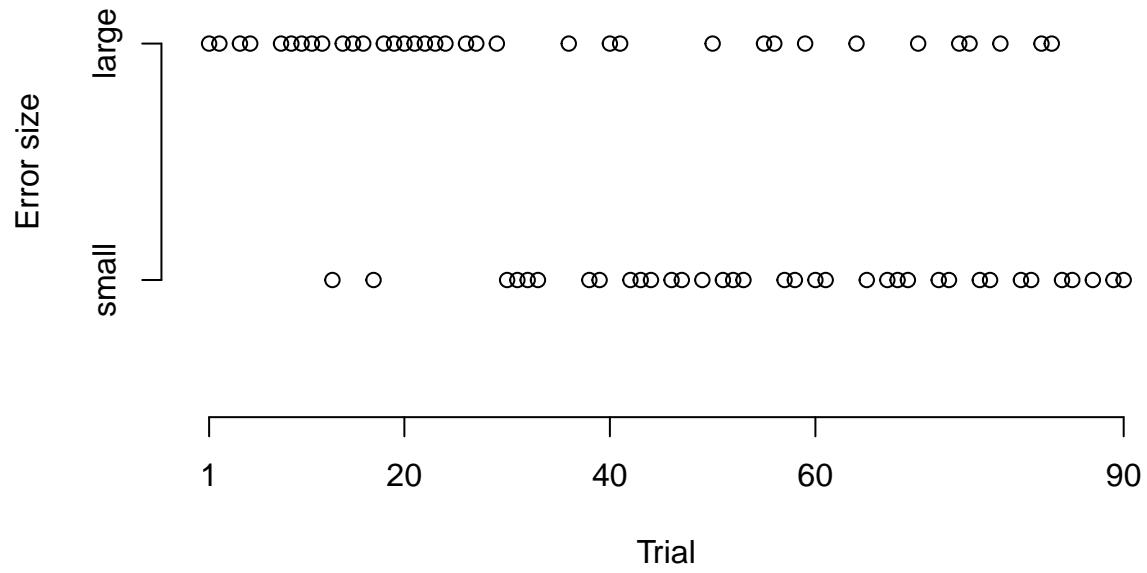
Rotation Errors across trials: Participant 2



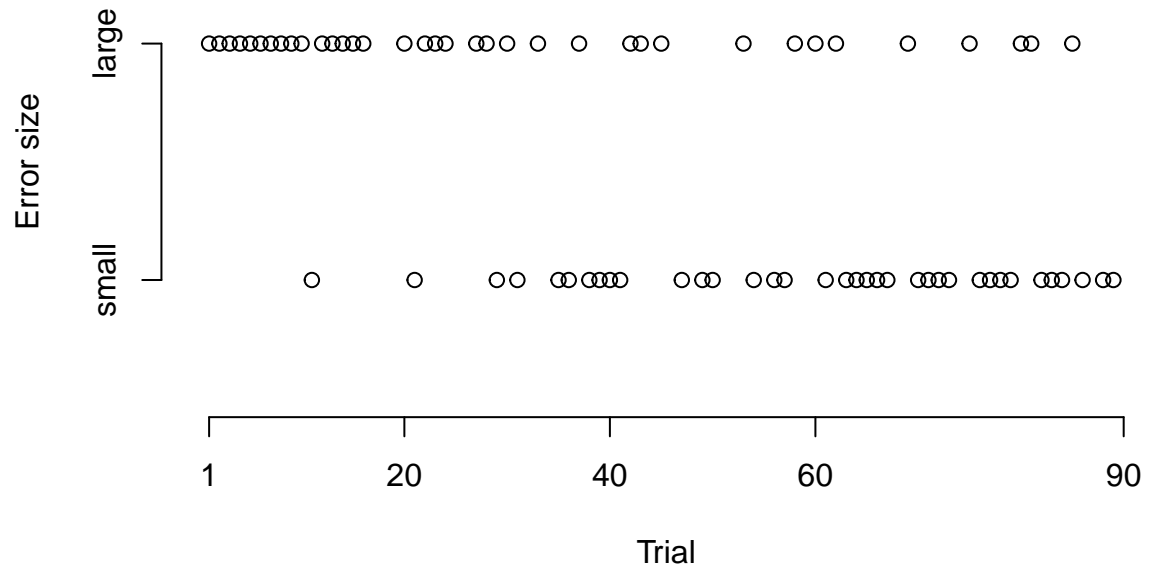
Rotation Errors across trials: Participant 3



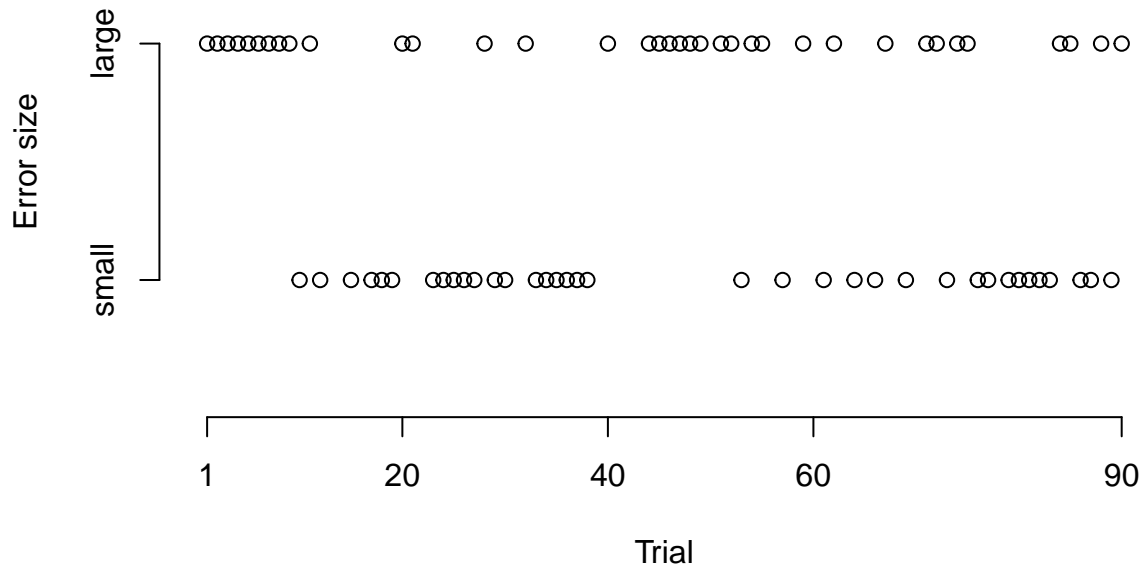
Rotation Errors across trials: Participant 4



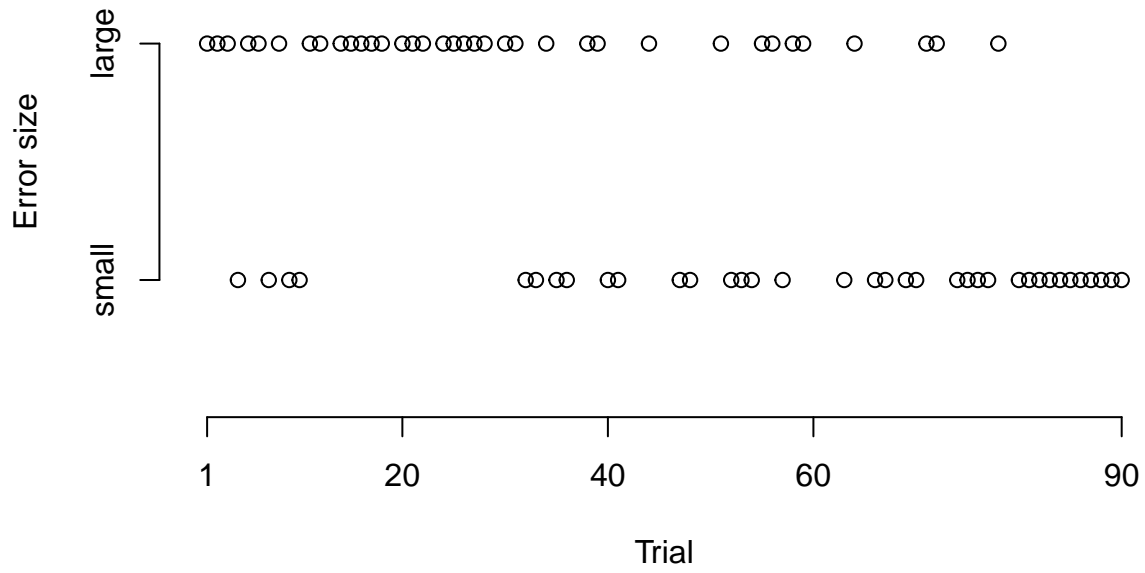
Rotation Errors across trials: Participant 5



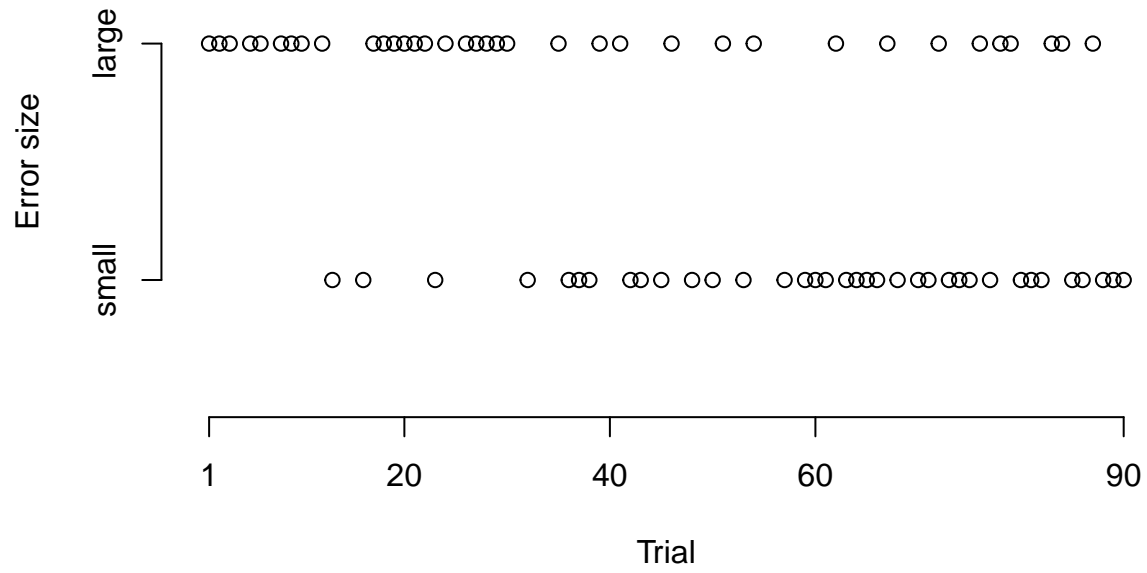
Rotation Errors across trials: Participant 6



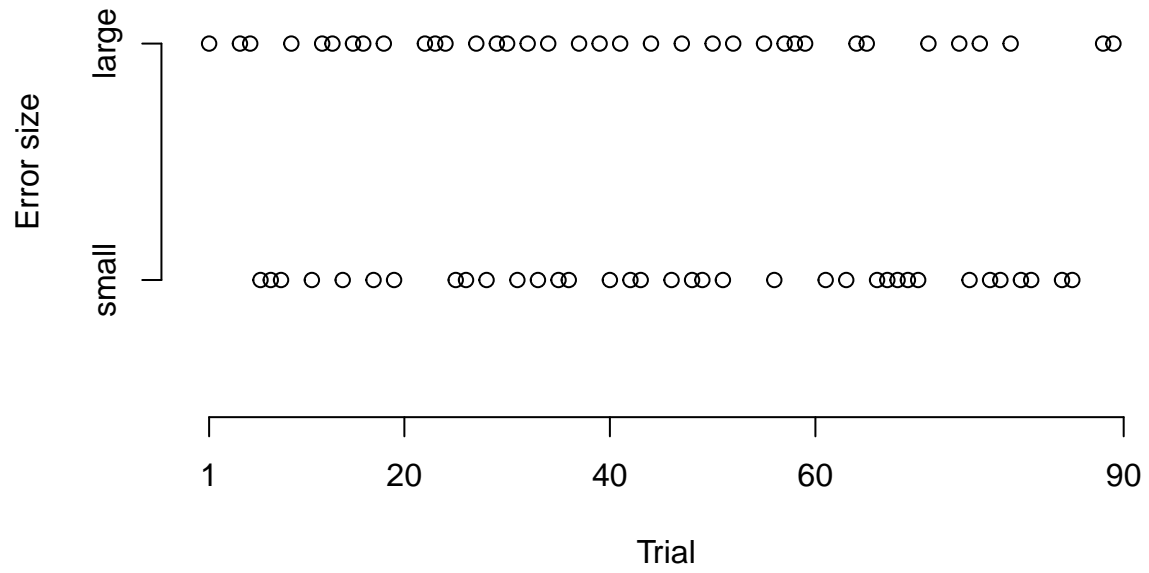
Rotation Errors across trials: Participant 7



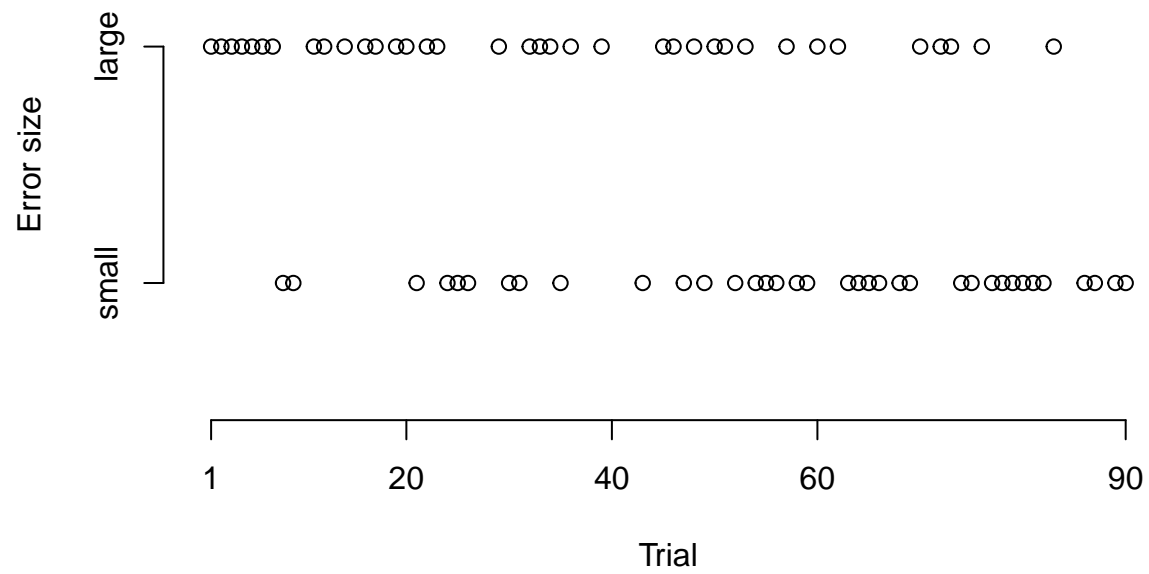
Rotation Errors across trials: Participant 8



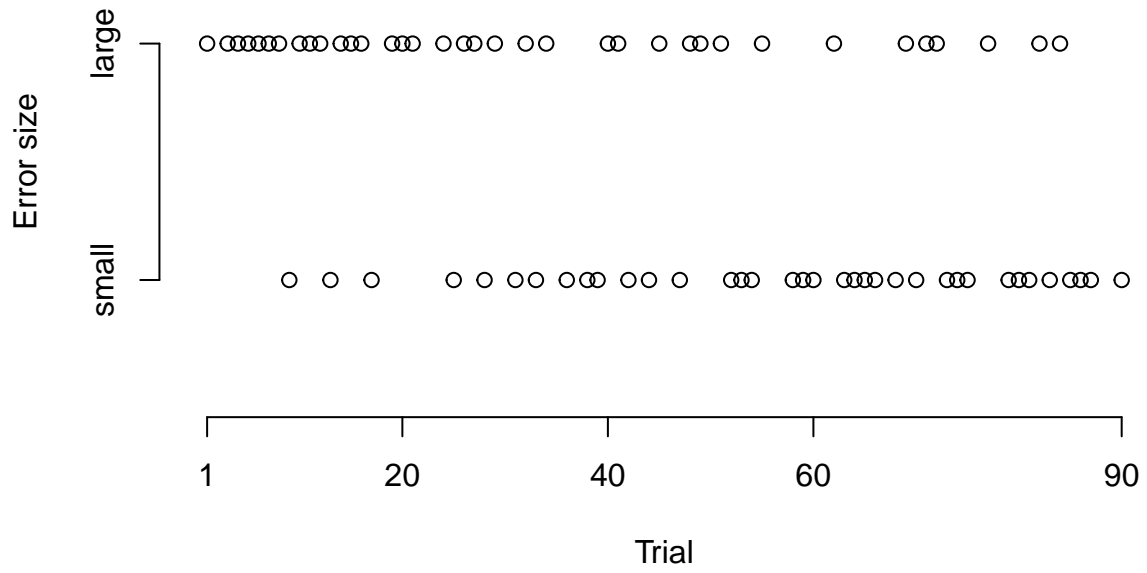
Rotation Errors across trials: Participant 9



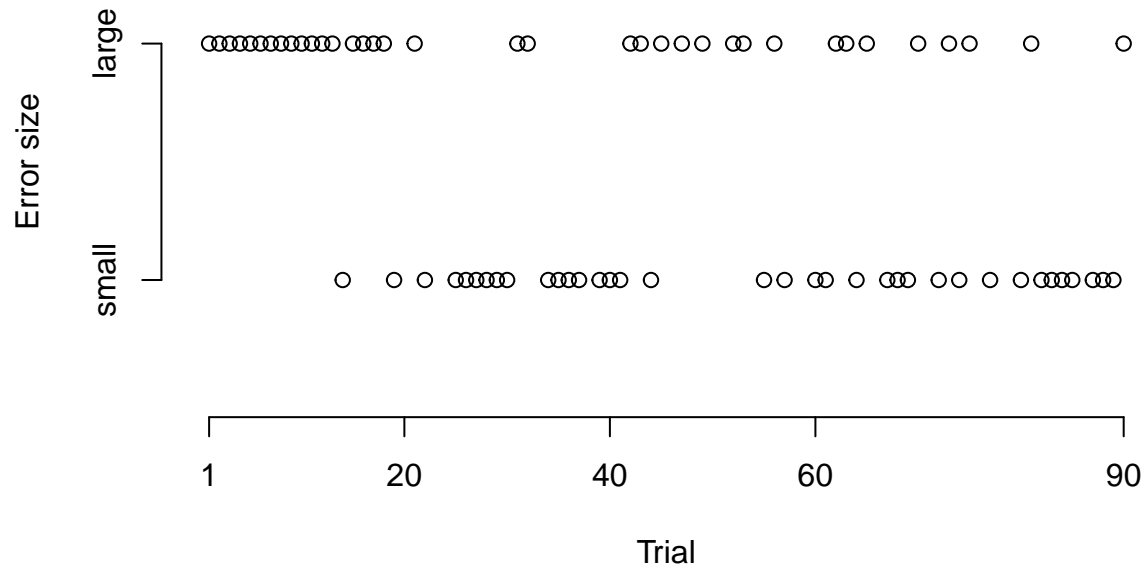
Rotation Errors across trials: Participant 10



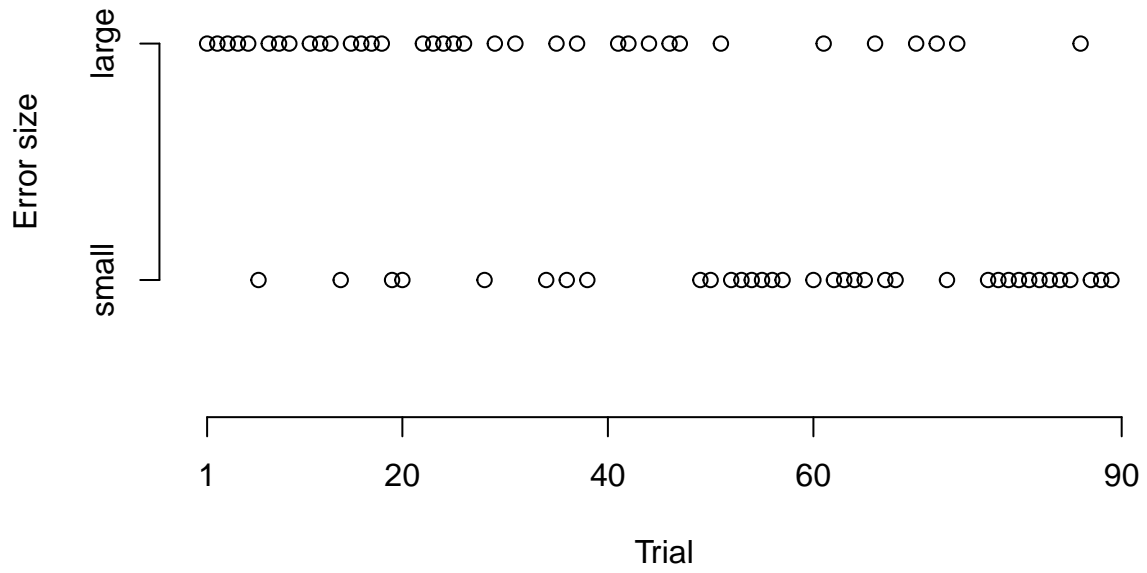
Rotation Errors across trials: Participant 11



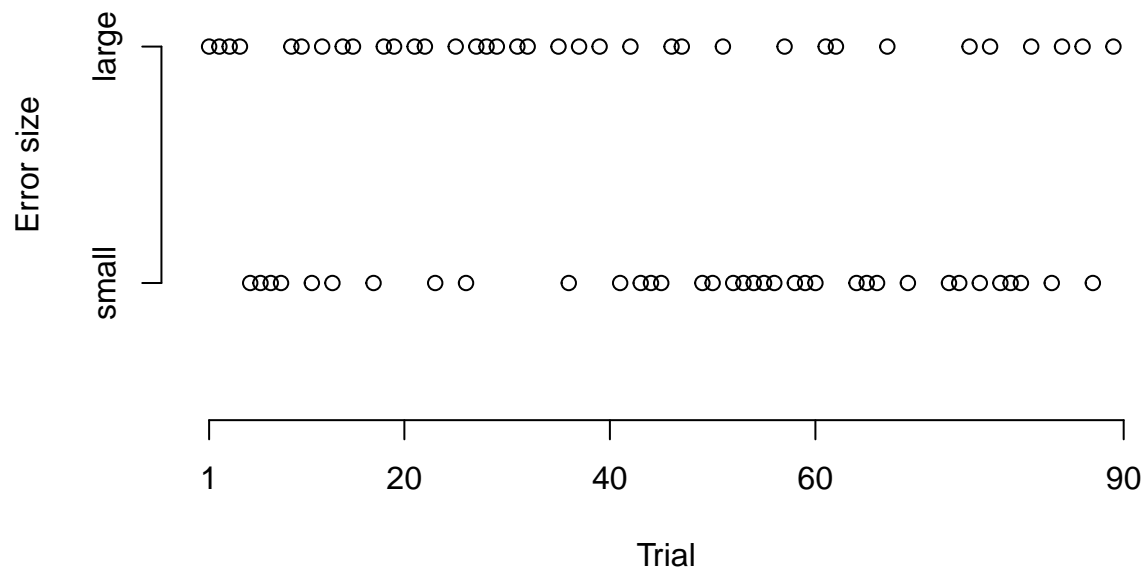
Rotation Errors across trials: Participant 12



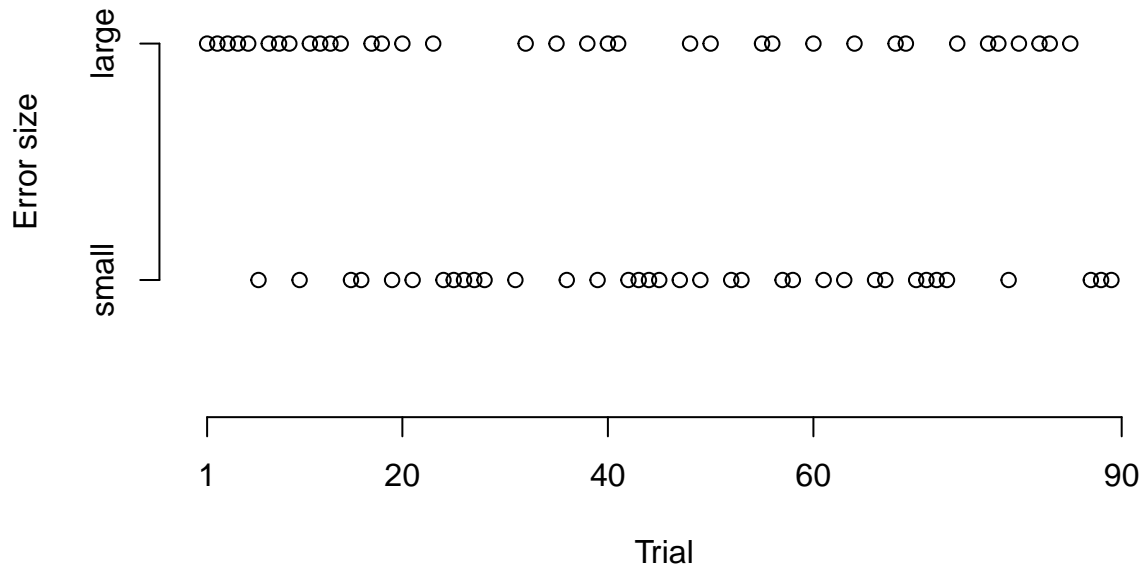
Rotation Errors across trials: Participant 13



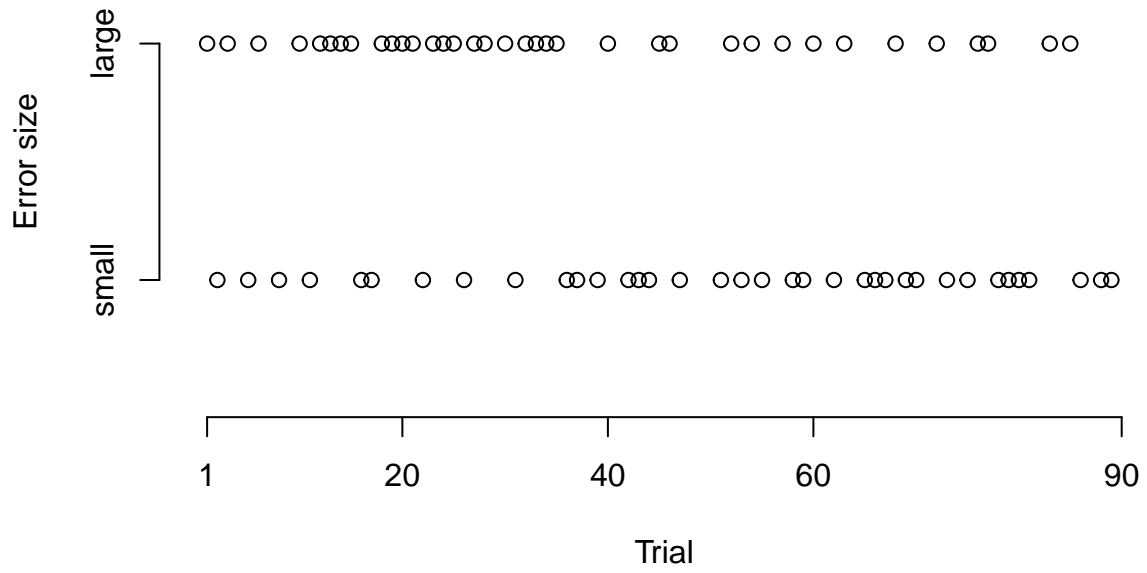
Rotation Errors across trials: Participant 14



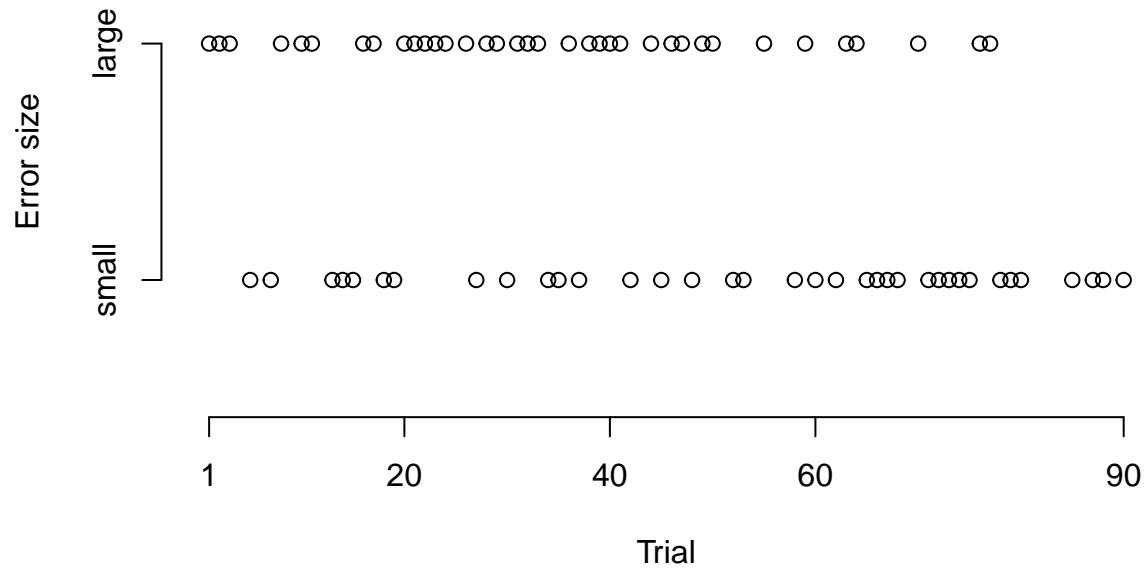
Rotation Errors across trials: Participant 15



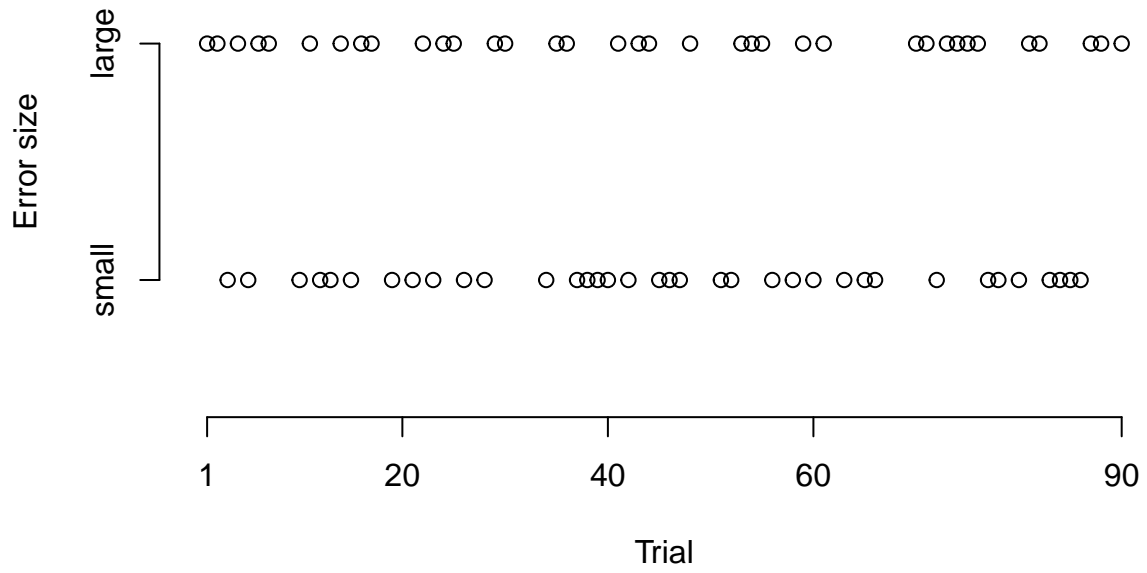
Rotation Errors across trials: Participant 16



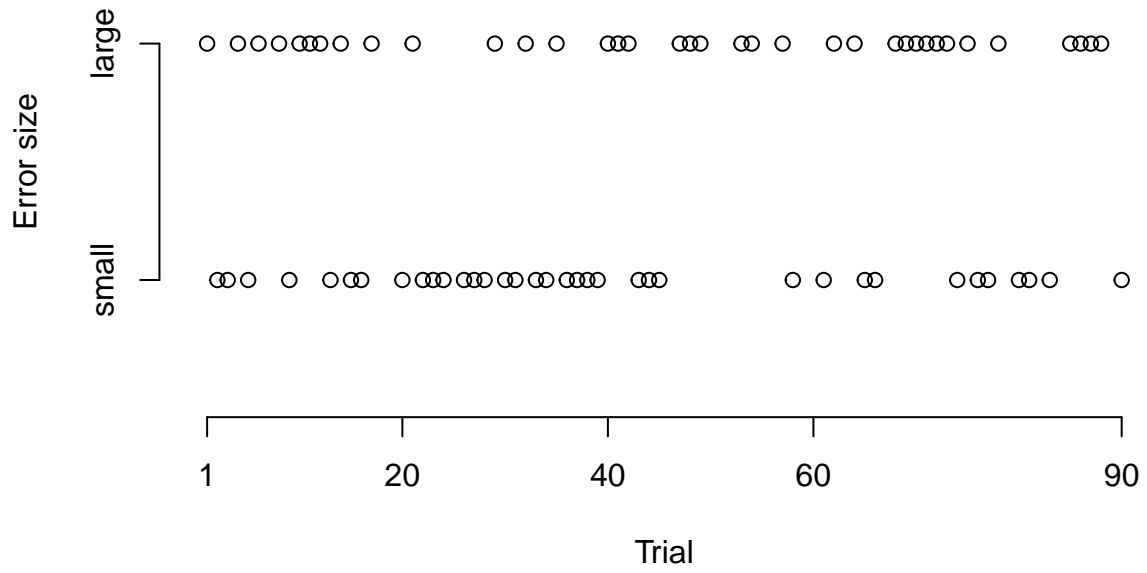
Rotation Errors across trials: Participant 17



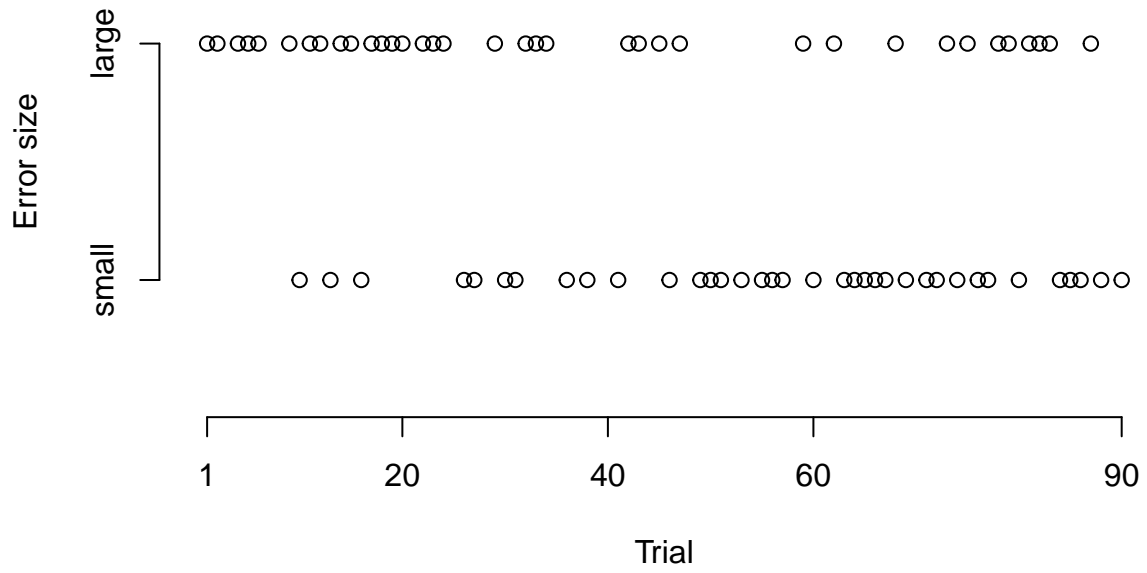
Rotation Errors across trials: Participant 18



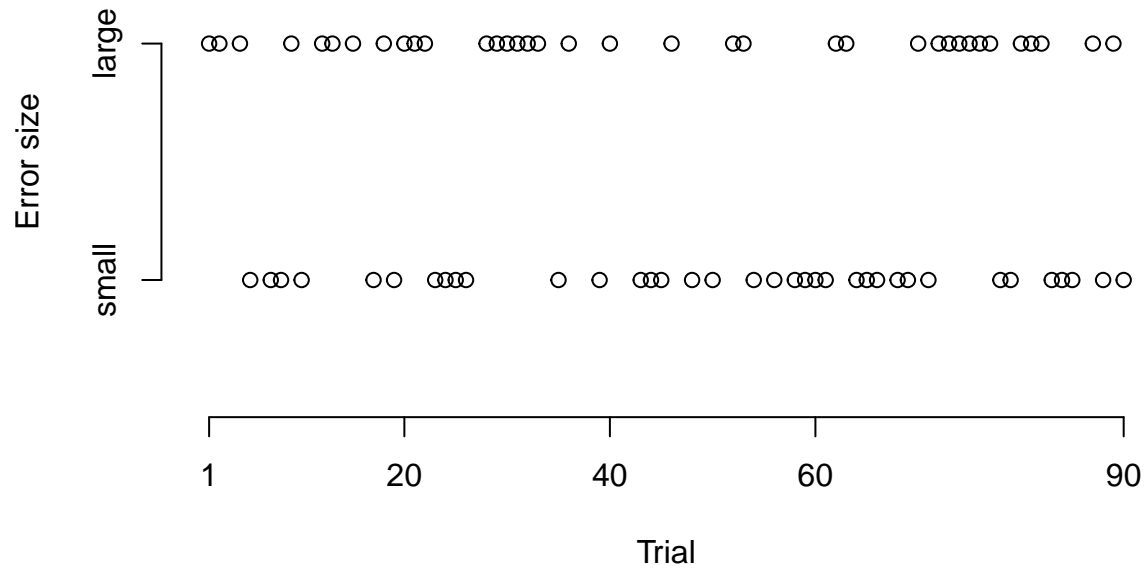
Rotation Errors across trials: Participant 19



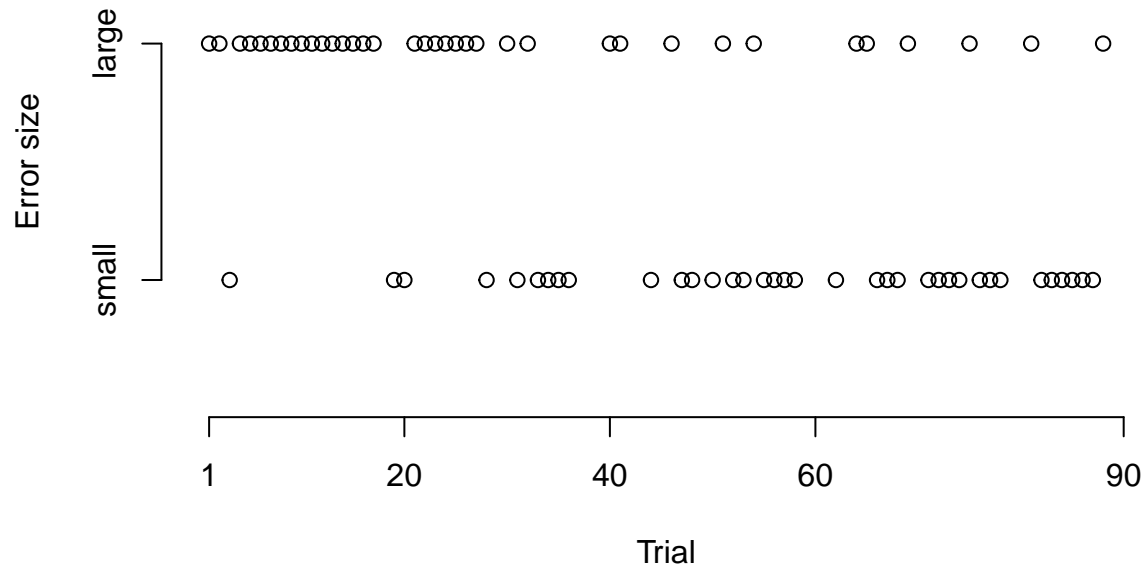
Rotation Errors across trials: Participant 20



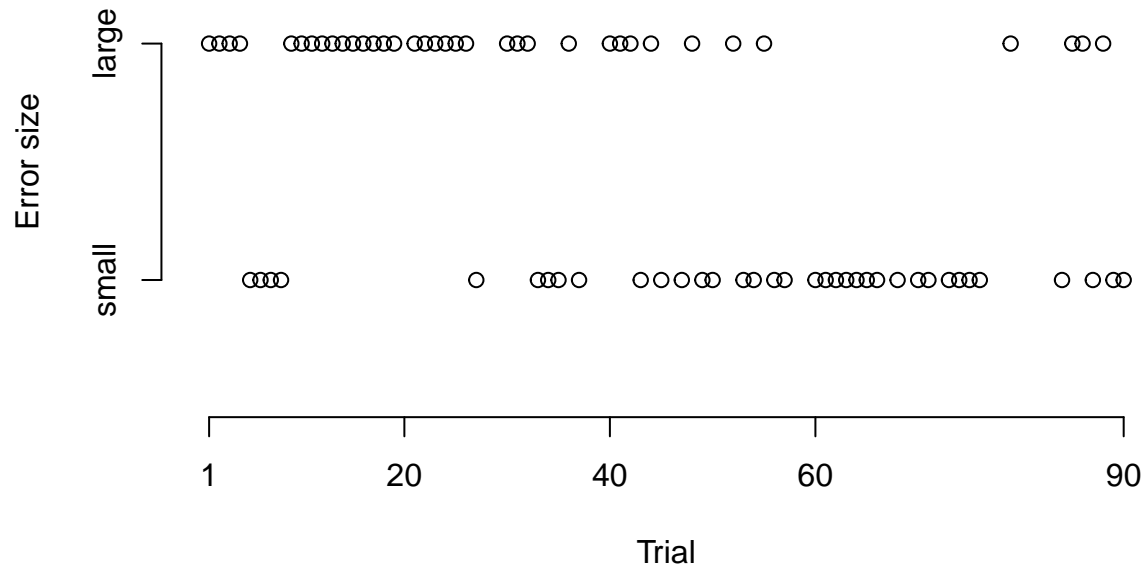
Rotation Errors across trials: Participant 21



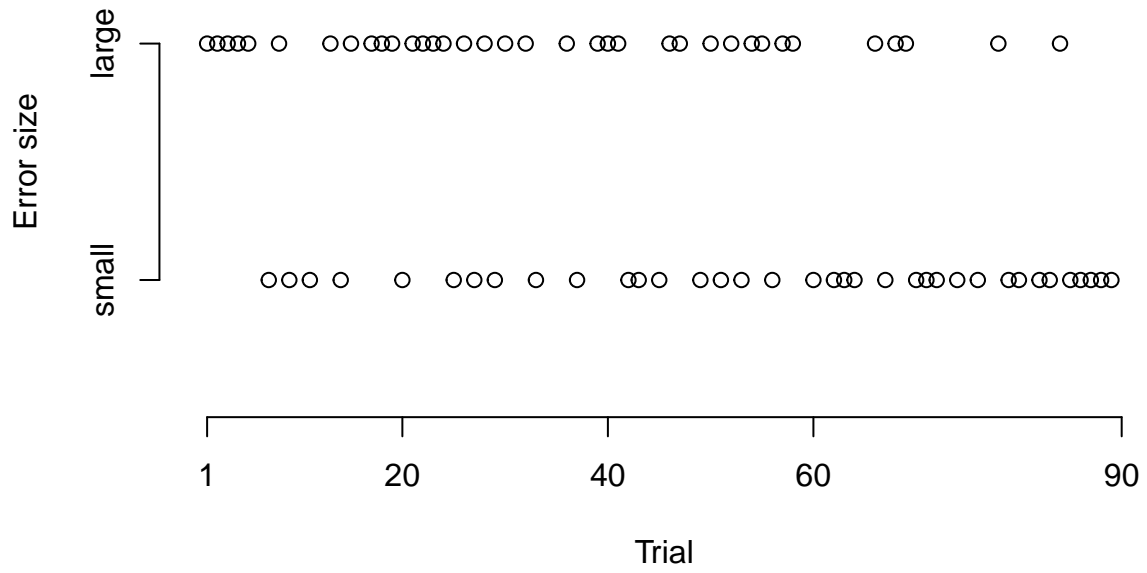
Rotation Errors across trials: Participant 22



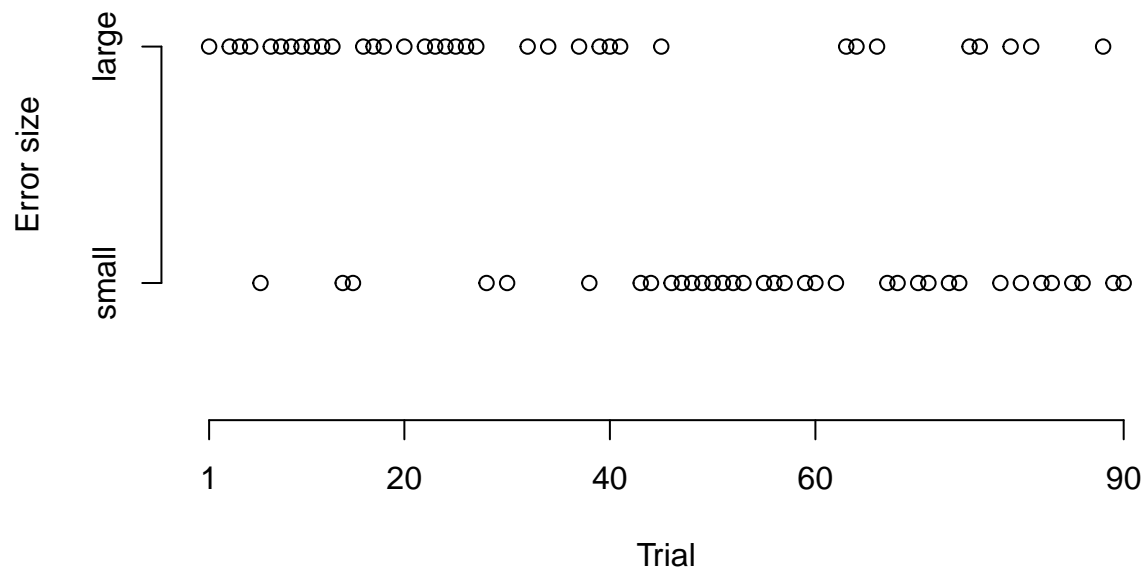
Rotation Errors across trials: Participant 23



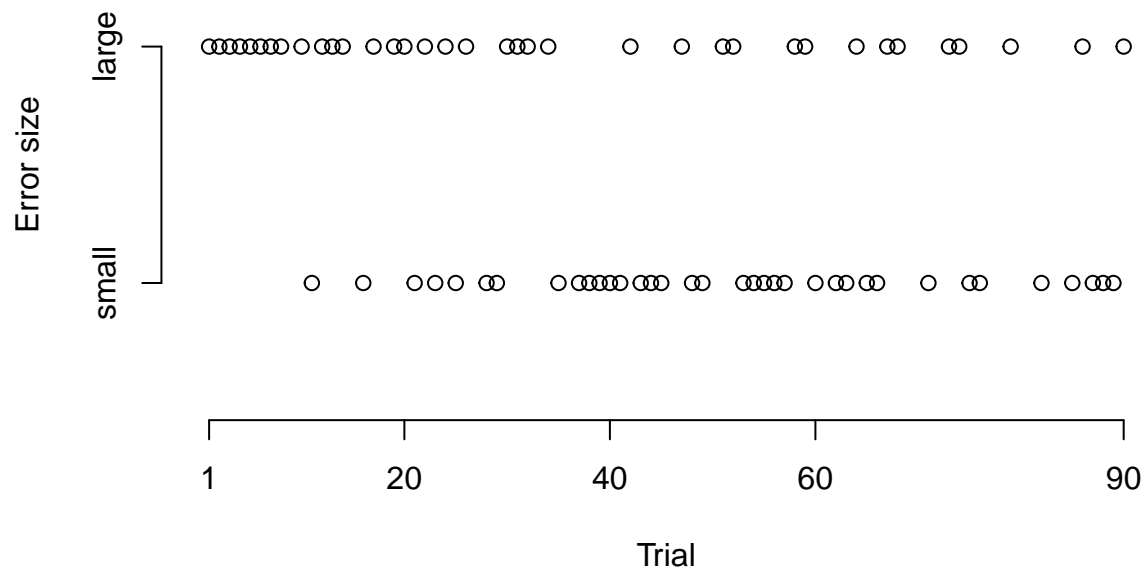
Rotation Errors across trials: Participant 24



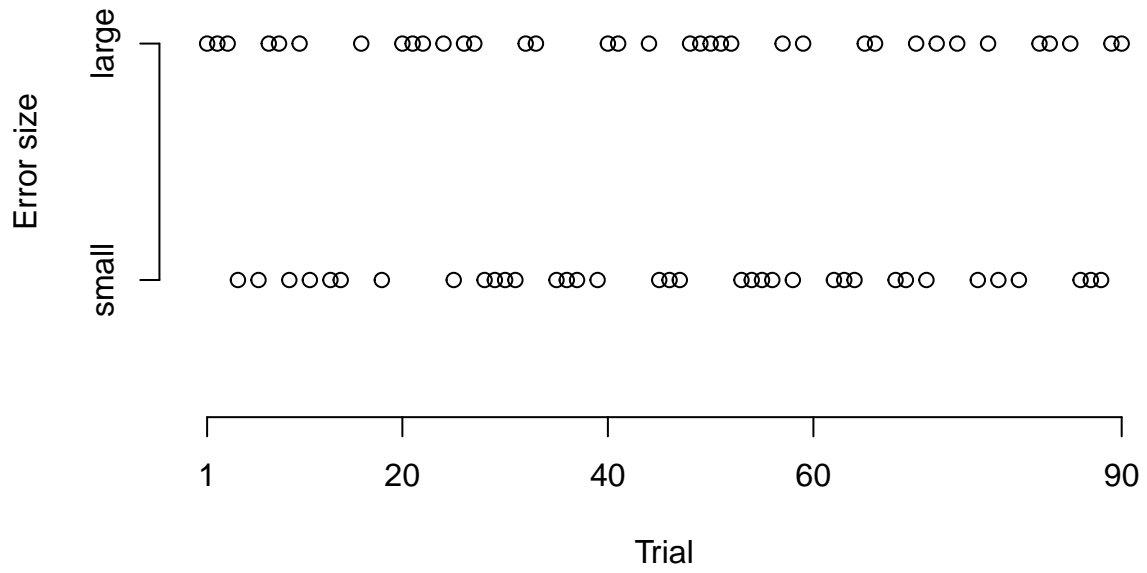
Rotation Errors across trials: Participant 25



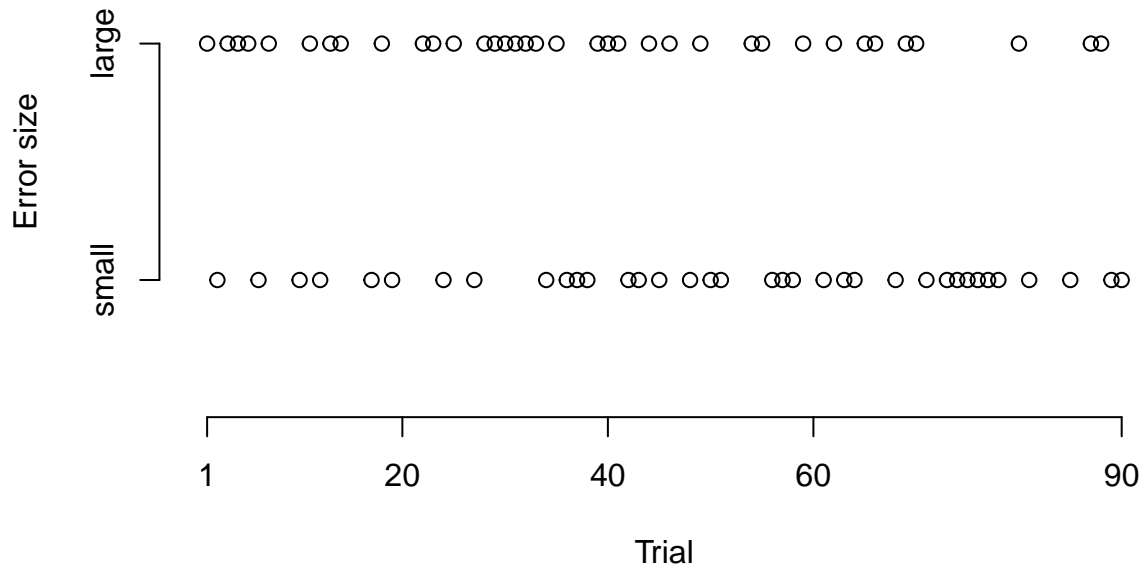
Rotation Errors across trials: Participant 26



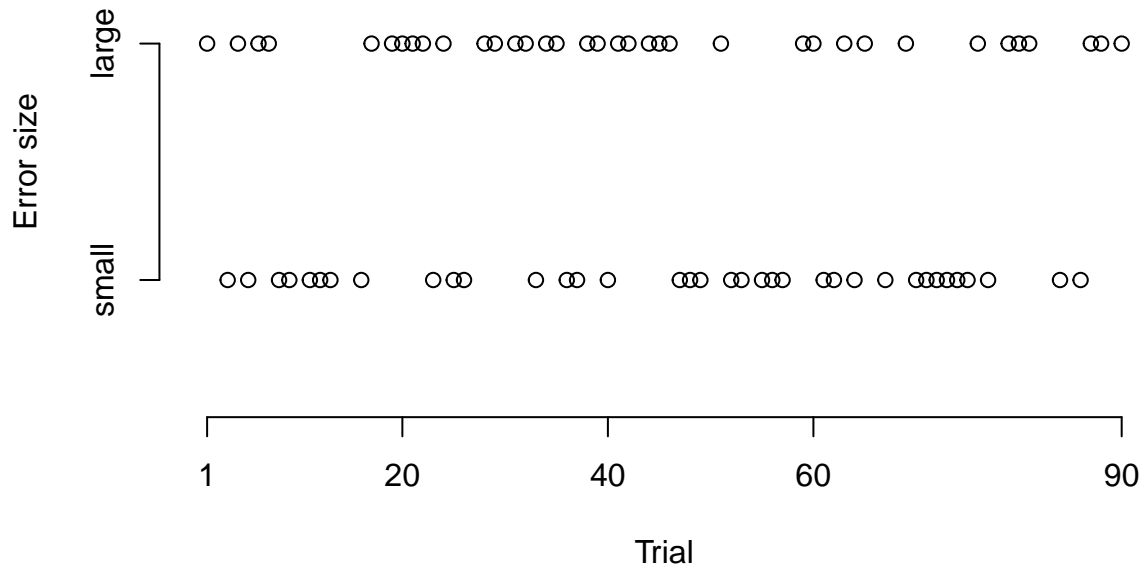
Rotation Errors across trials: Participant 27



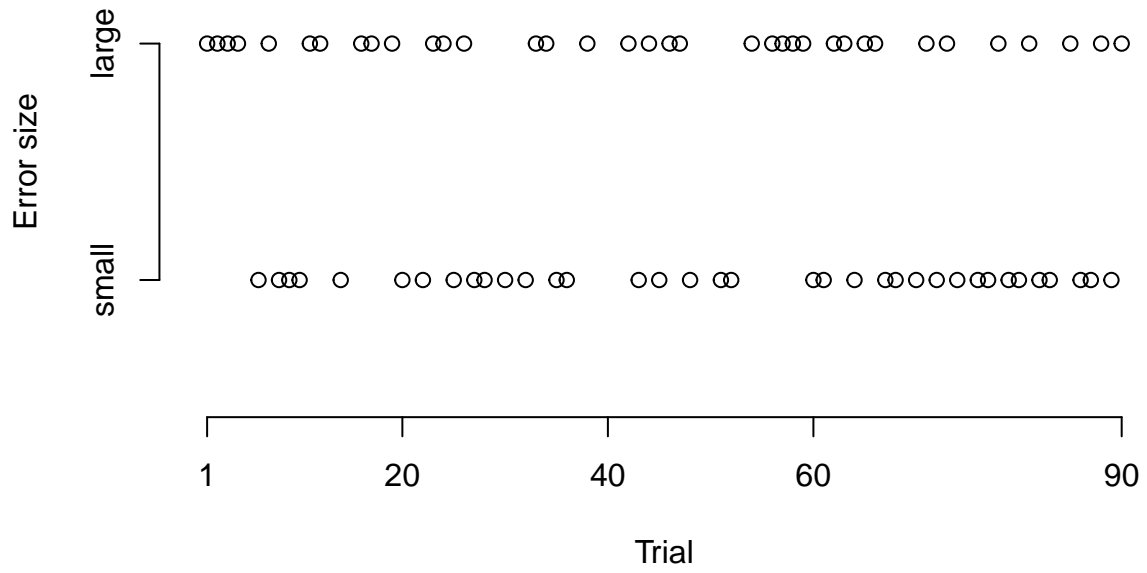
Rotation Errors across trials: Participant 28



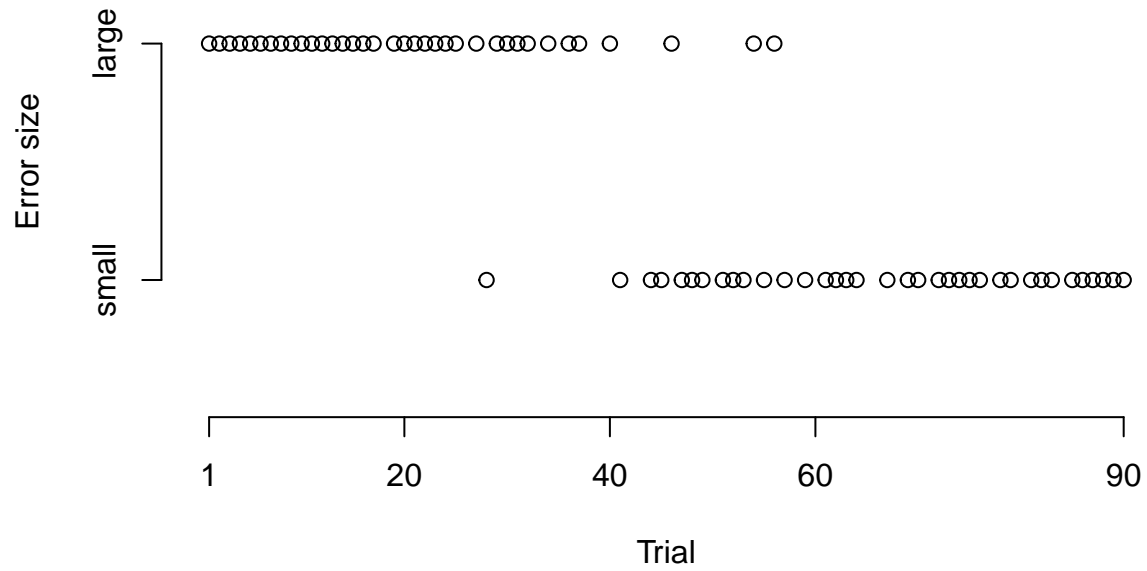
Rotation Errors across trials: Participant 29



Rotation Errors across trials: Participant 30



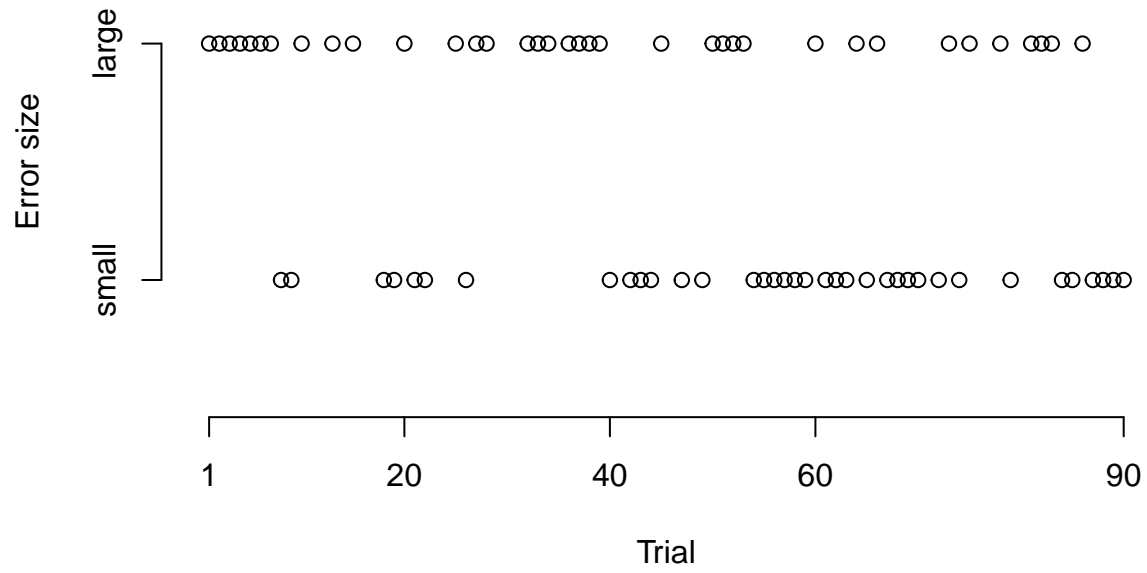
Rotation Errors across trials: Participant 31



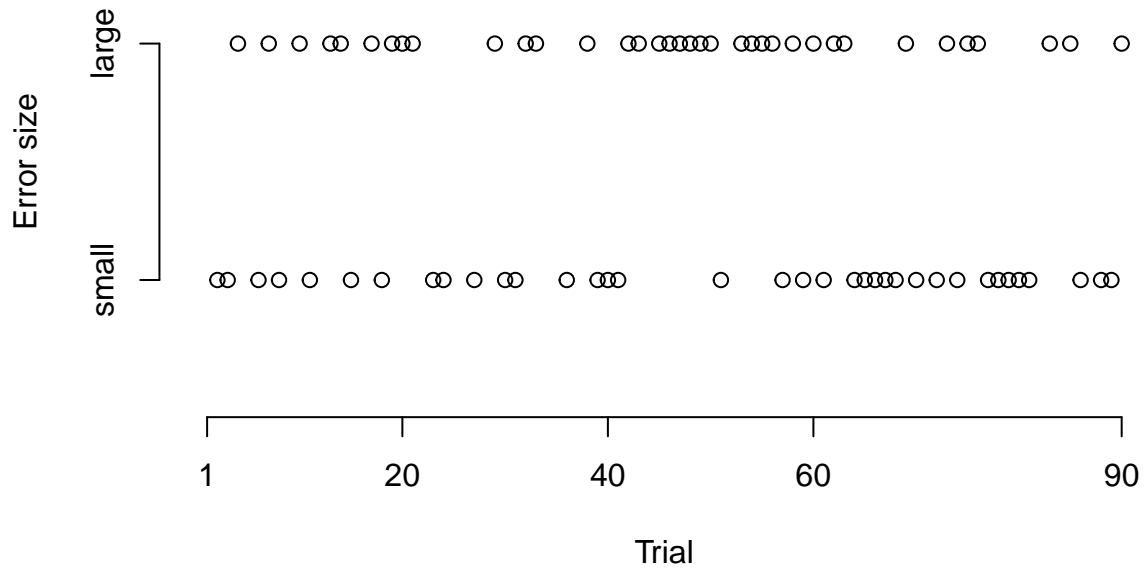
Trial indices for small and large errors: Mirror

```
plotMIRErrorIndices()
```

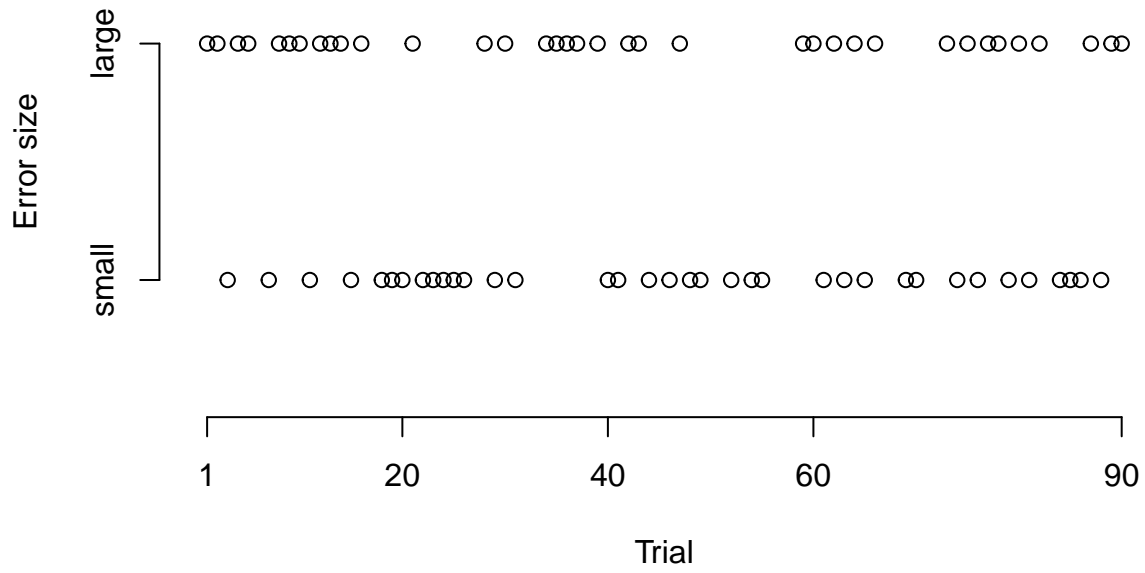
Mirror Errors across trials: Participant 0



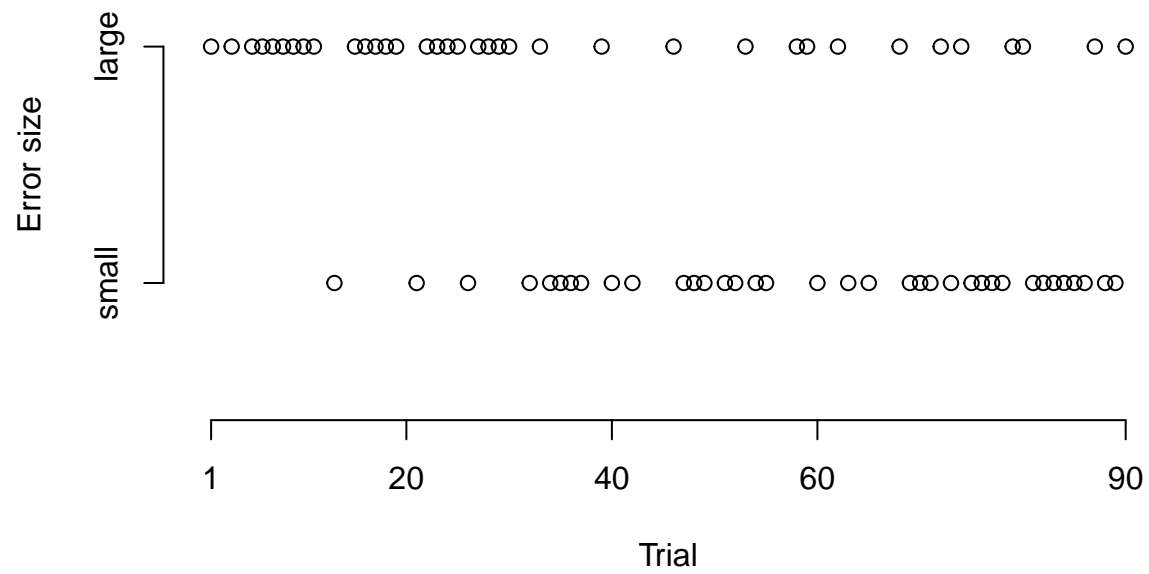
Mirror Errors across trials: Participant 1



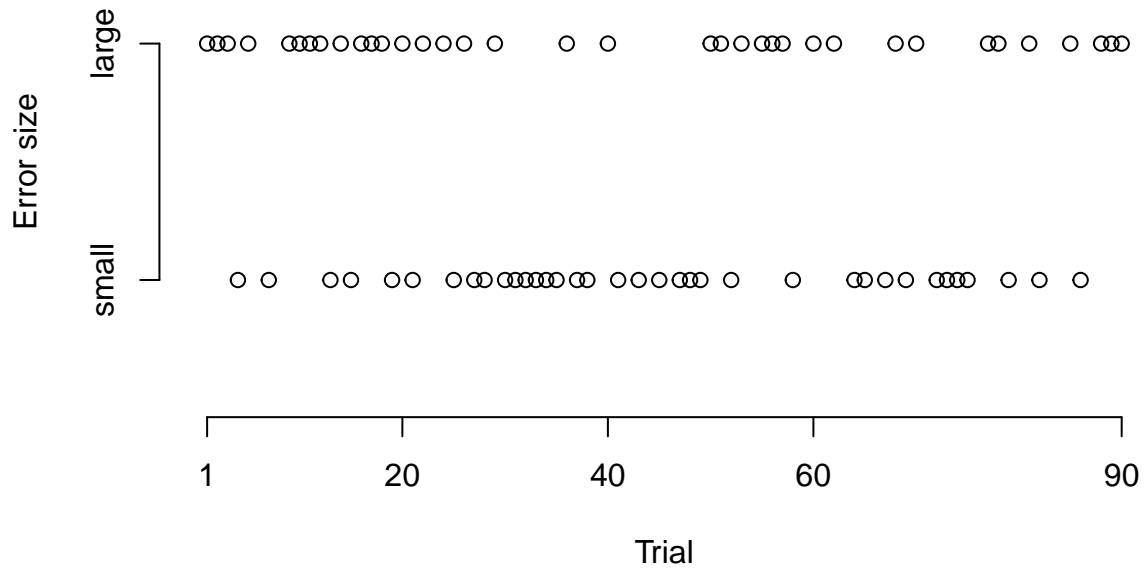
Mirror Errors across trials: Participant 2



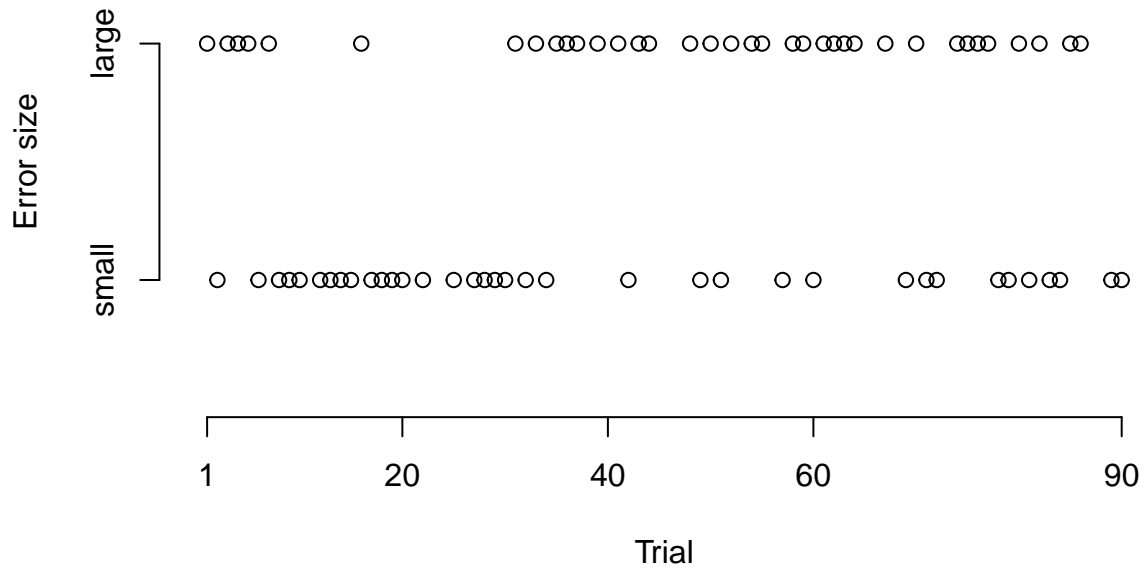
Mirror Errors across trials: Participant 3



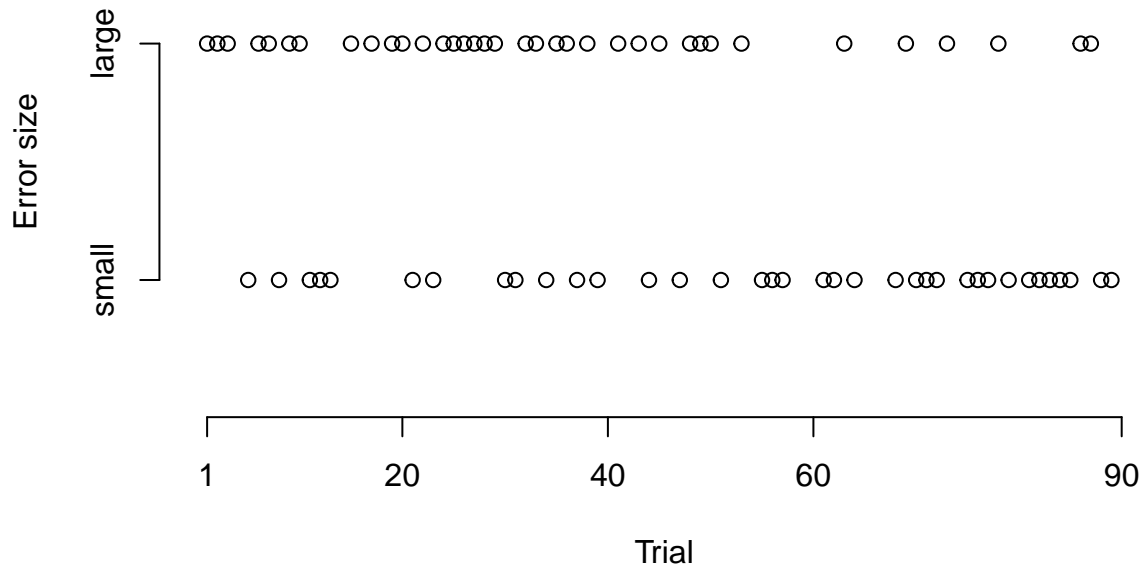
Mirror Errors across trials: Participant 4



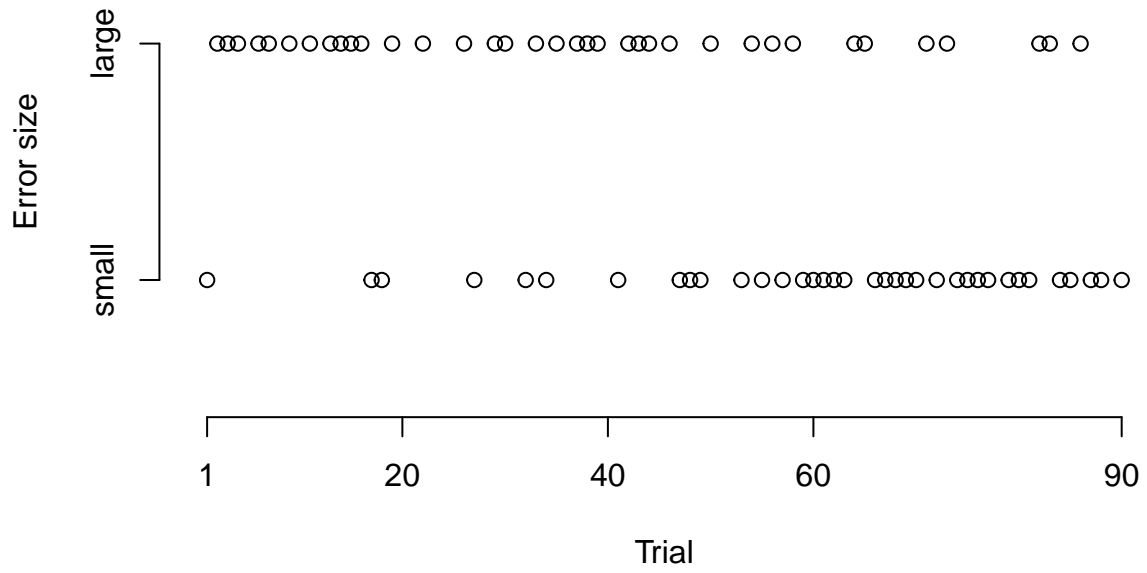
Mirror Errors across trials: Participant 5



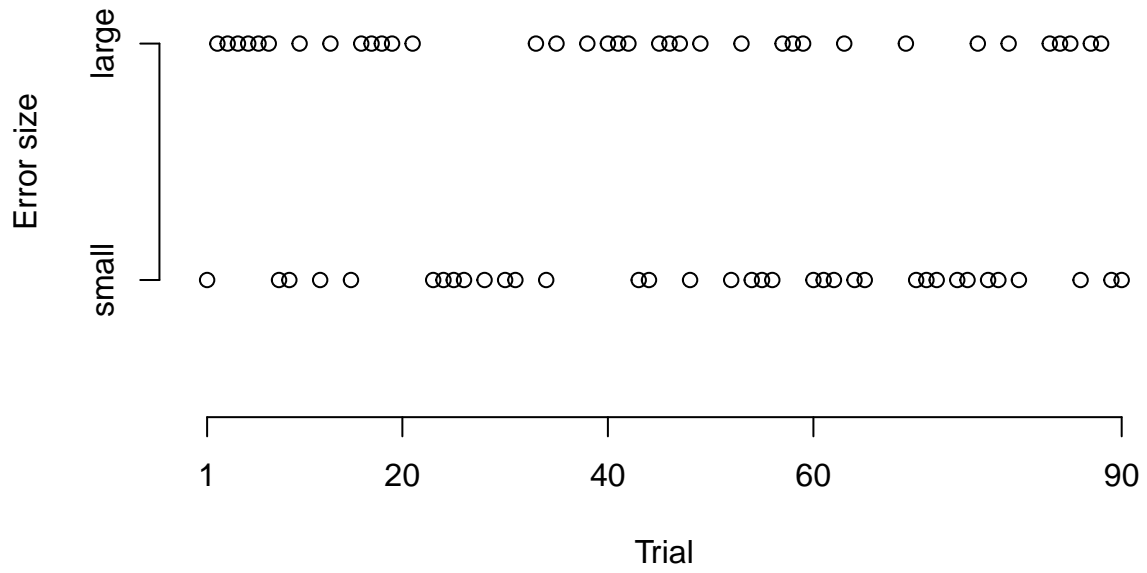
Mirror Errors across trials: Participant 6



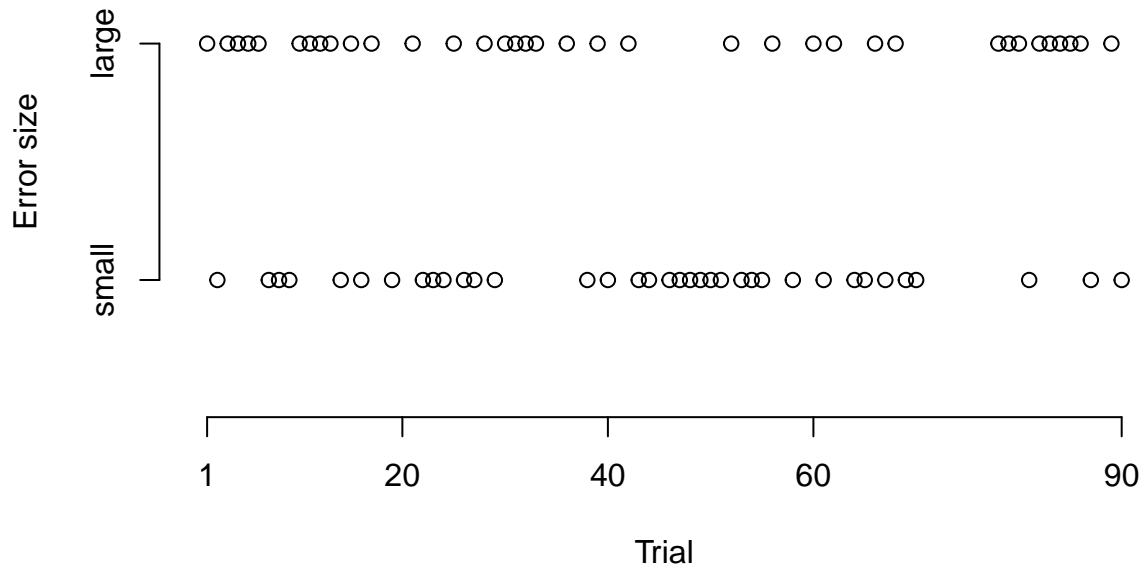
Mirror Errors across trials: Participant 7



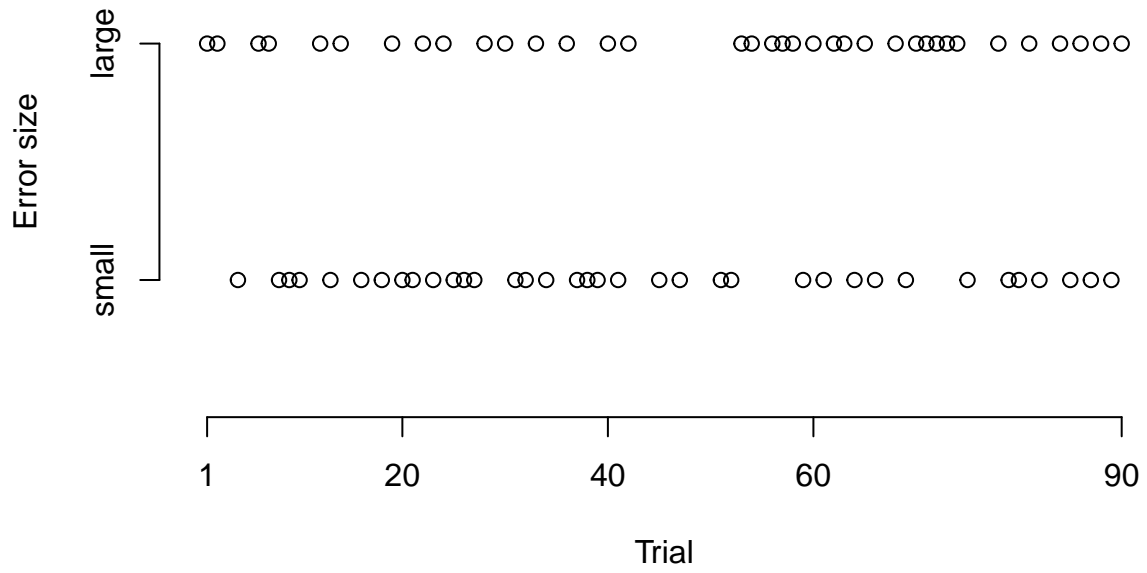
Mirror Errors across trials: Participant 8



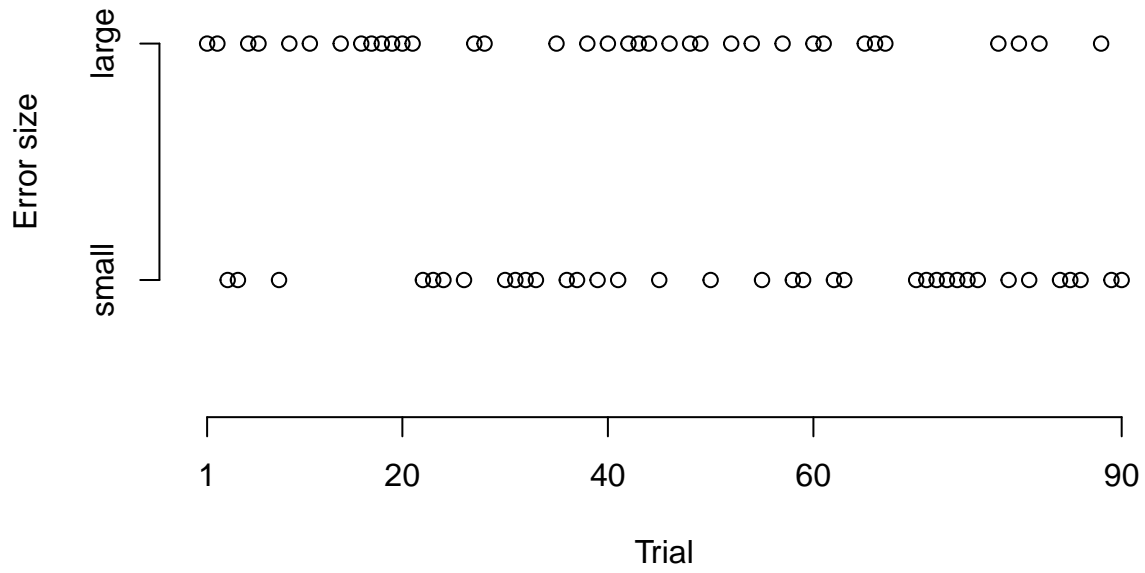
Mirror Errors across trials: Participant 9



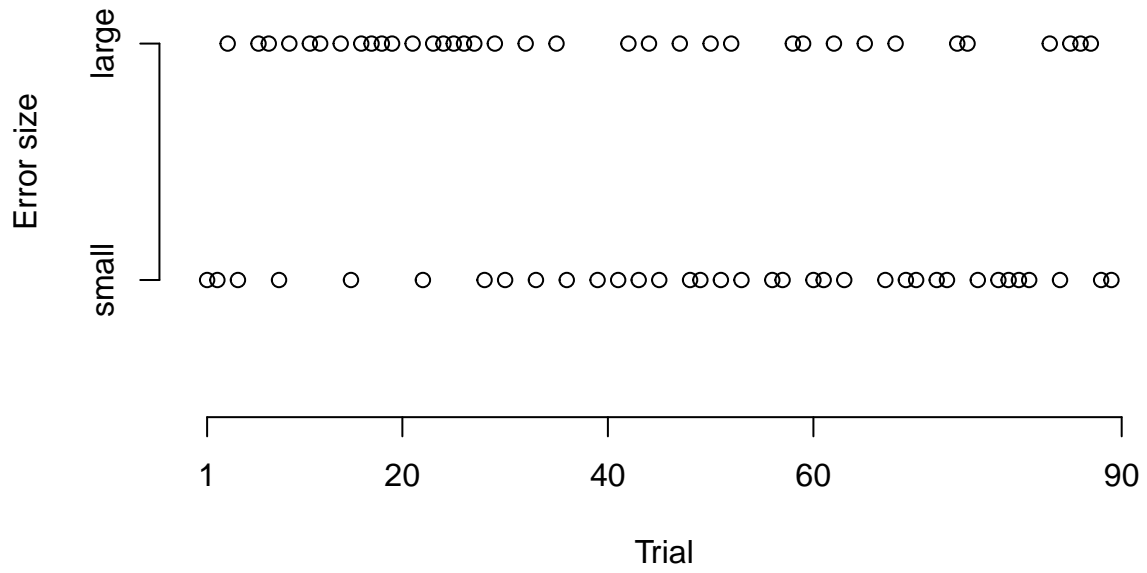
Mirror Errors across trials: Participant 10



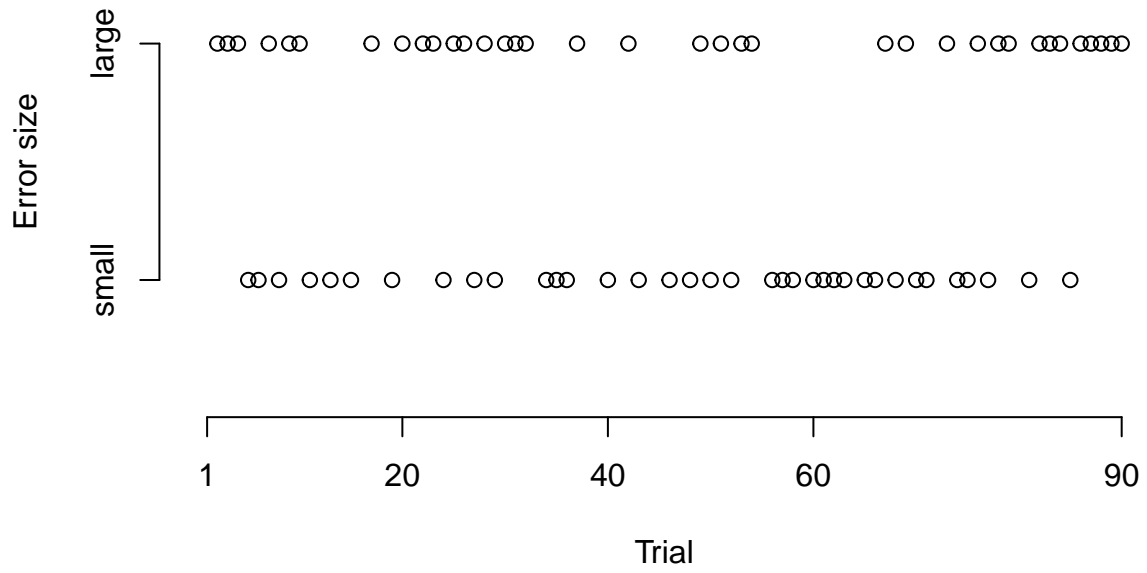
Mirror Errors across trials: Participant 11



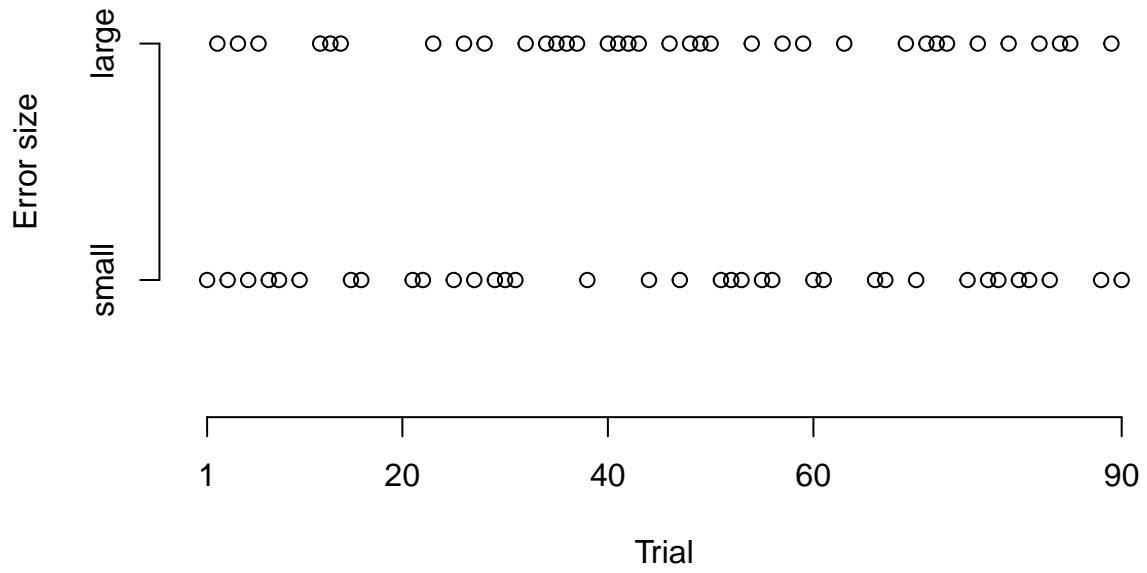
Mirror Errors across trials: Participant 12



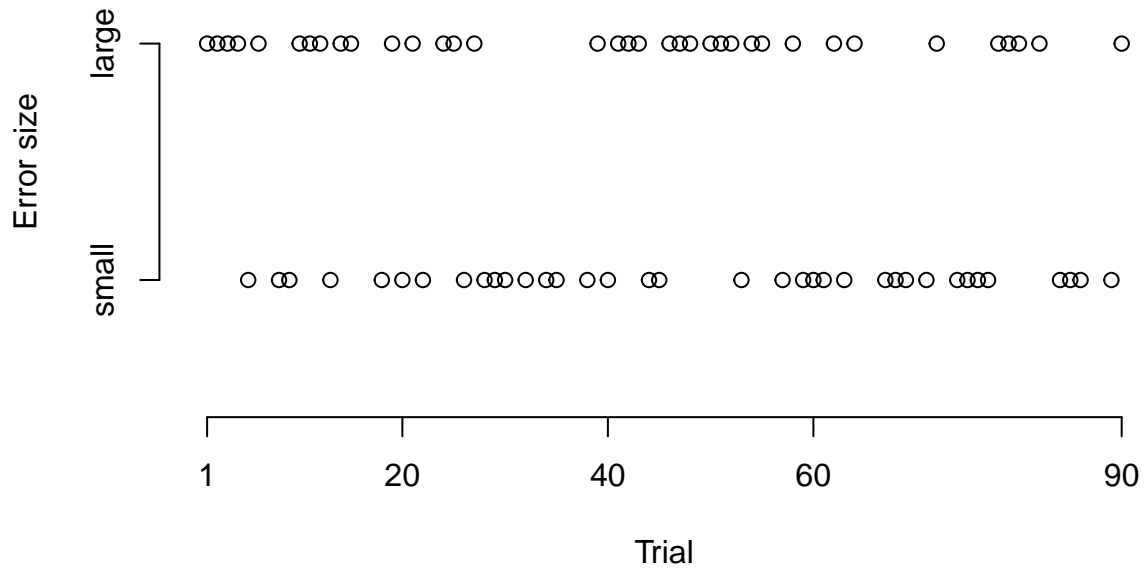
Mirror Errors across trials: Participant 13



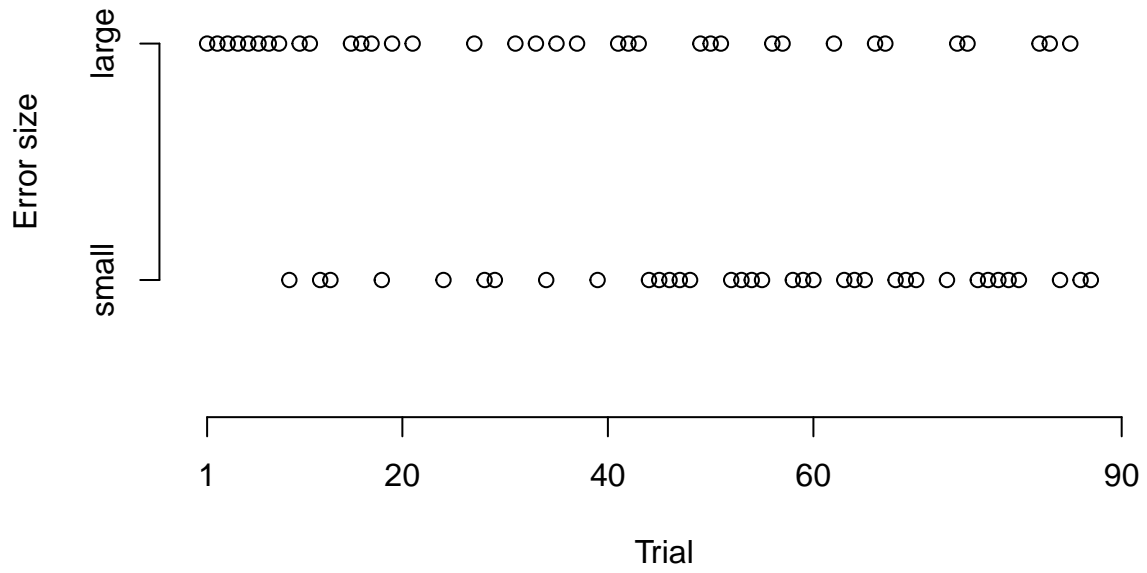
Mirror Errors across trials: Participant 14



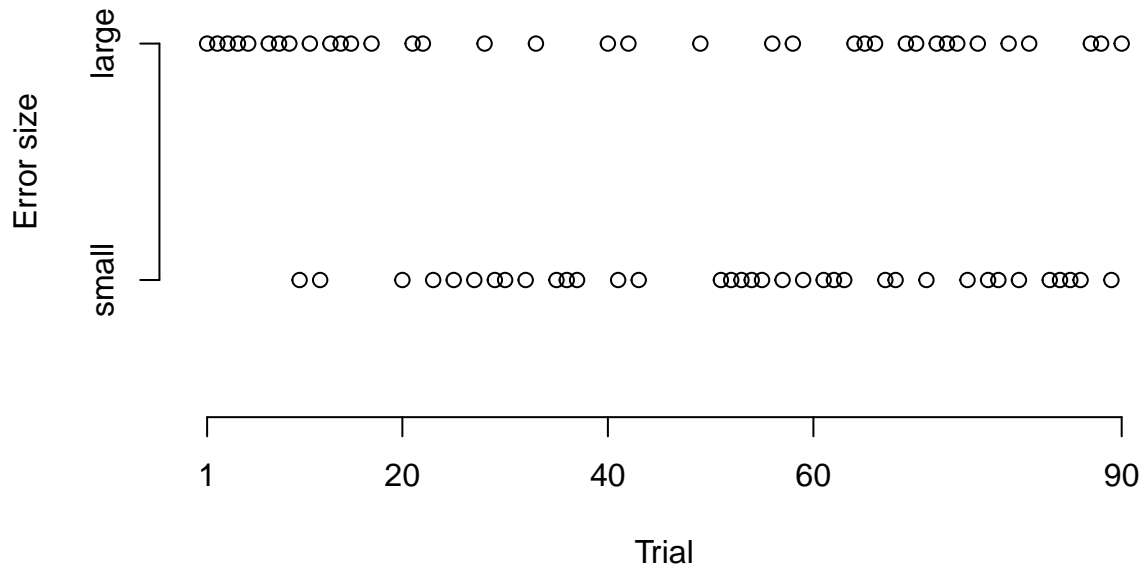
Mirror Errors across trials: Participant 15



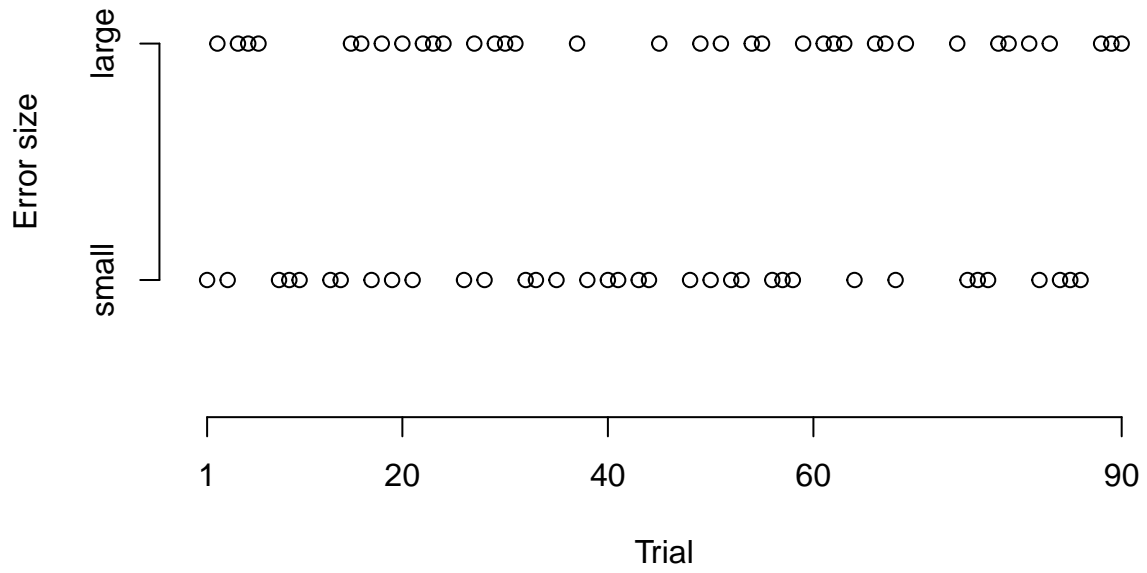
Mirror Errors across trials: Participant 16



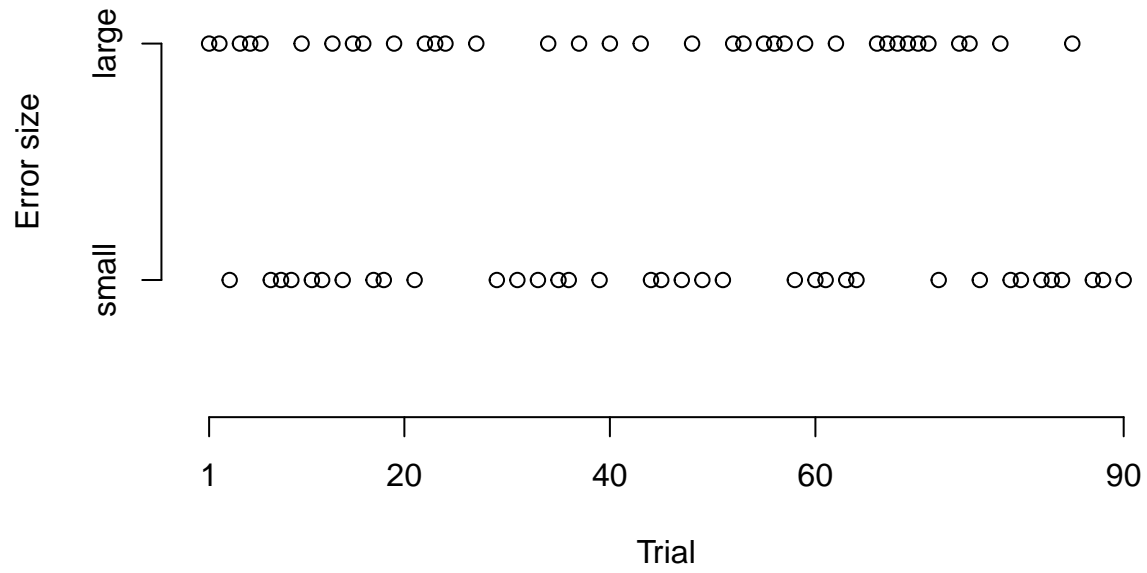
Mirror Errors across trials: Participant 17



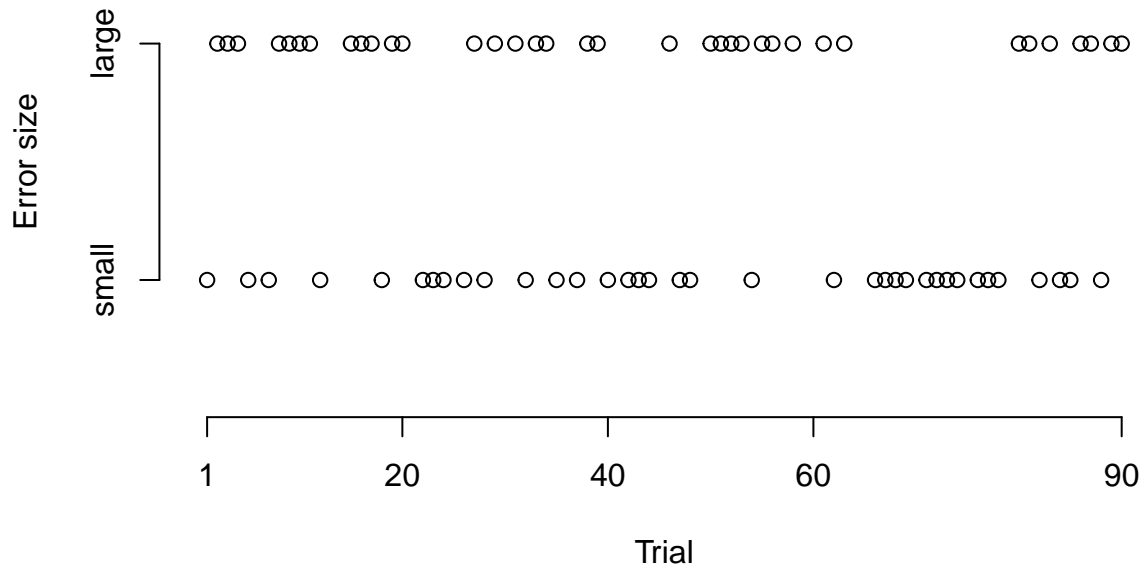
Mirror Errors across trials: Participant 18



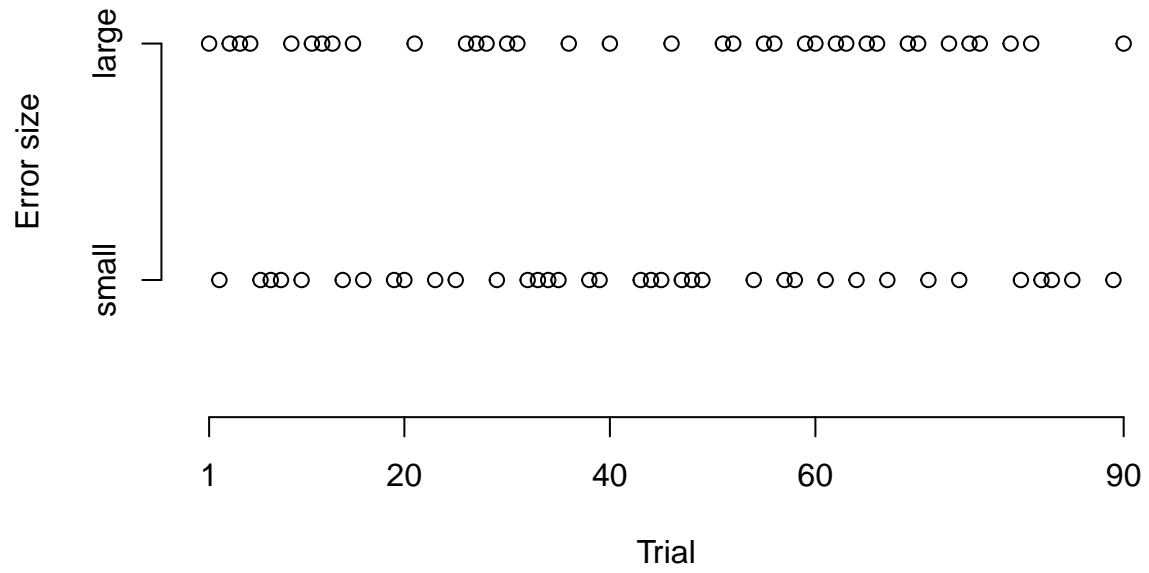
Mirror Errors across trials: Participant 19



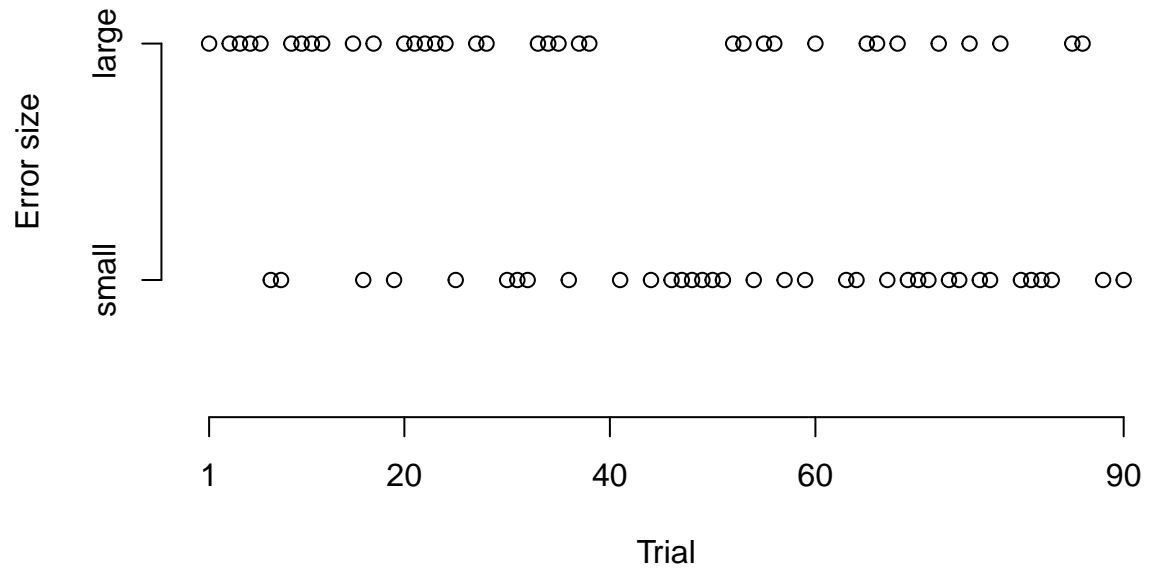
Mirror Errors across trials: Participant 20



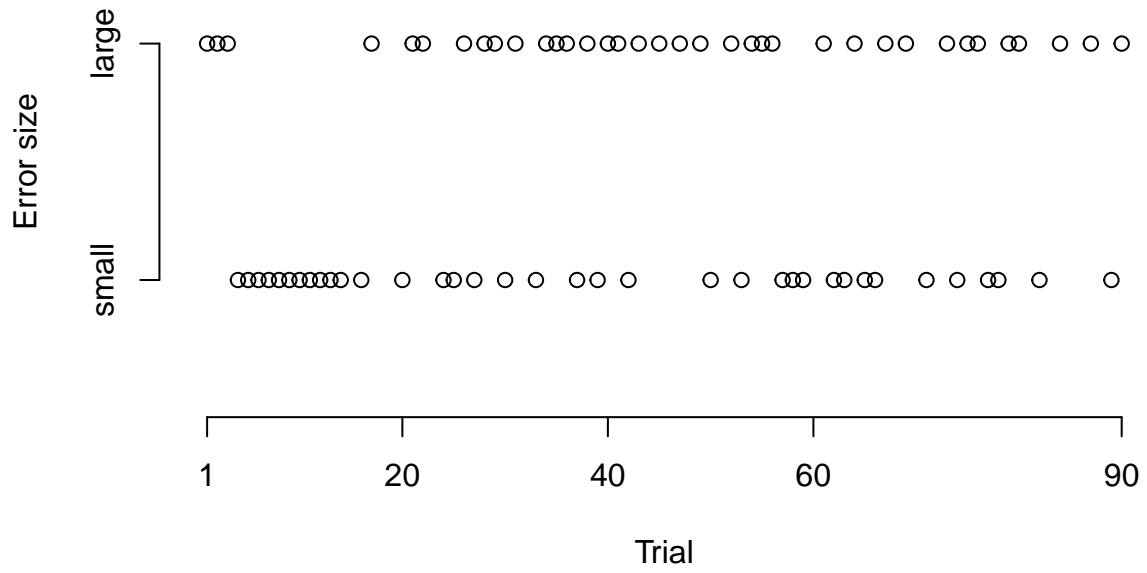
Mirror Errors across trials: Participant 21



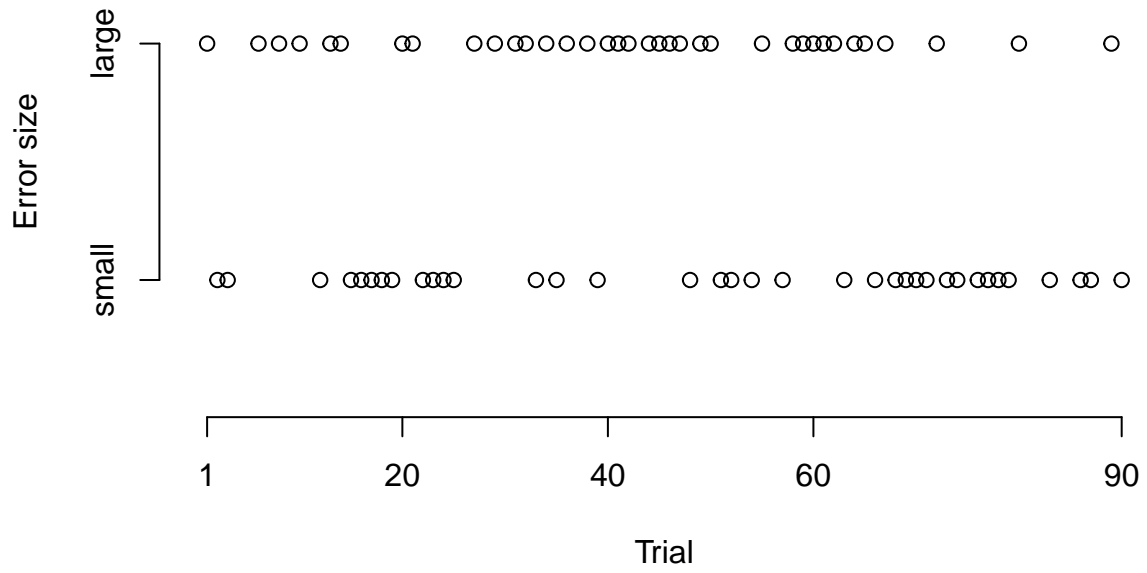
Mirror Errors across trials: Participant 22



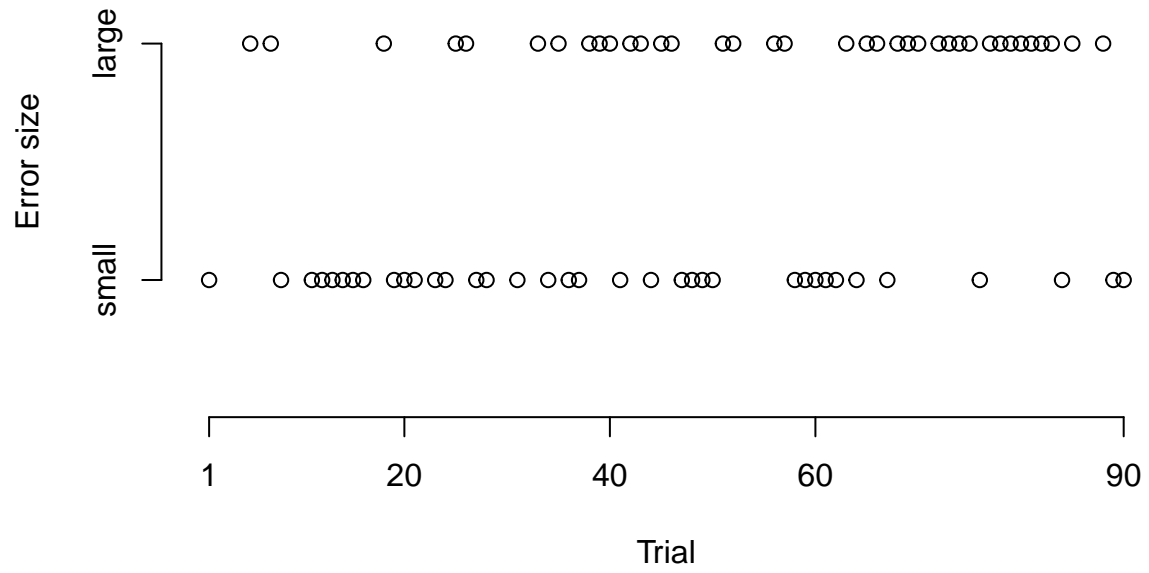
Mirror Errors across trials: Participant 23



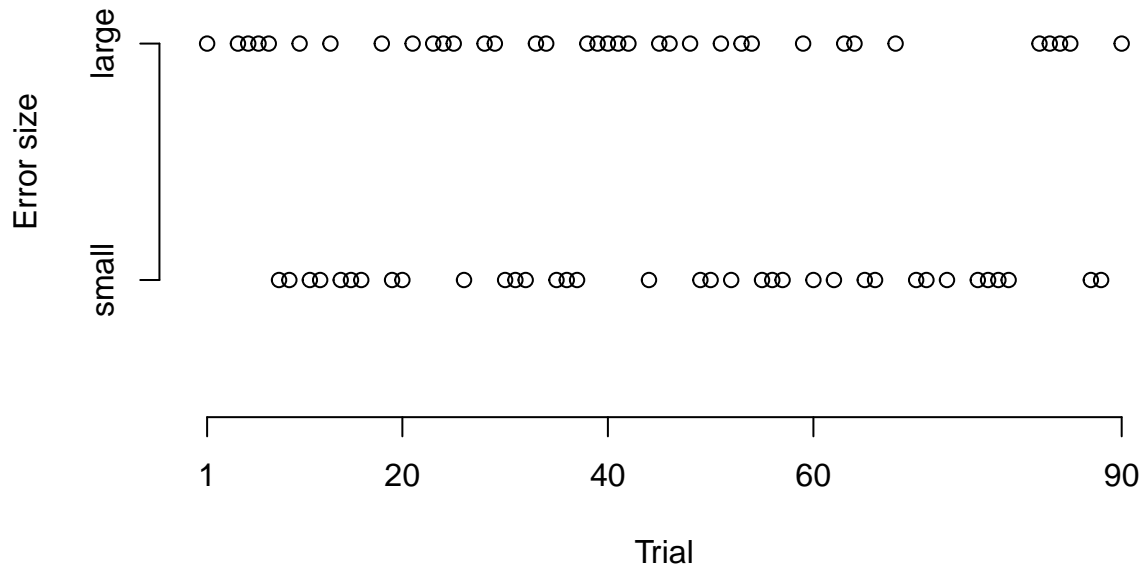
Mirror Errors across trials: Participant 24



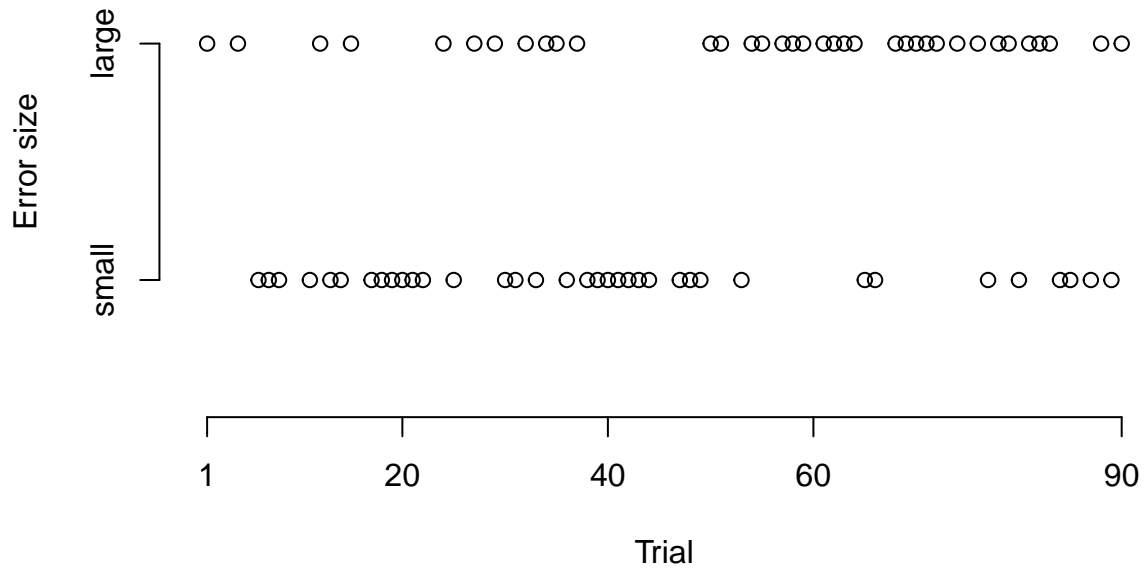
Mirror Errors across trials: Participant 25



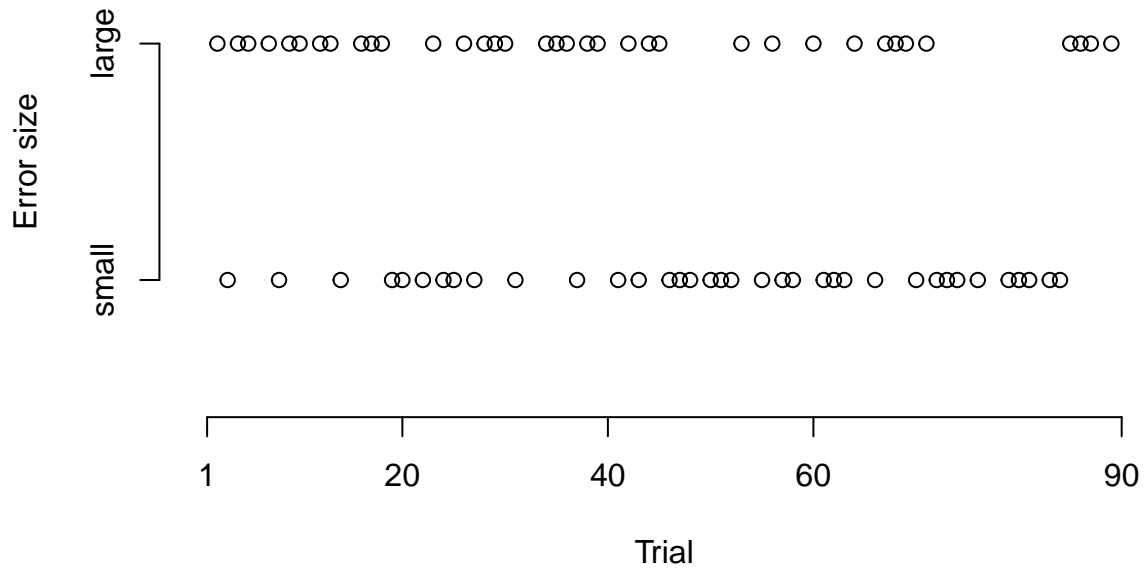
Mirror Errors across trials: Participant 26



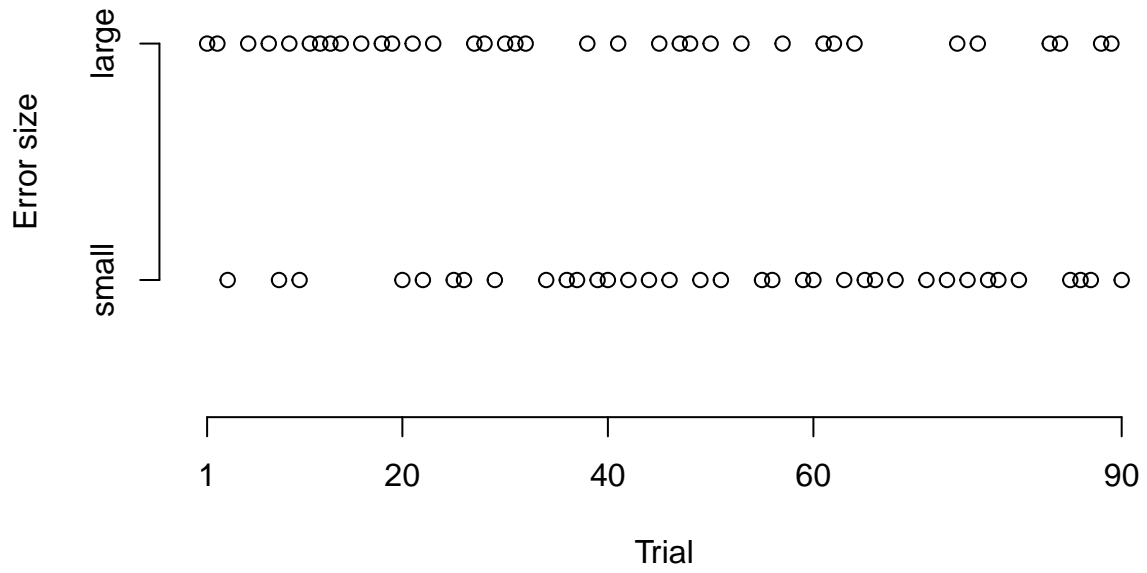
Mirror Errors across trials: Participant 27



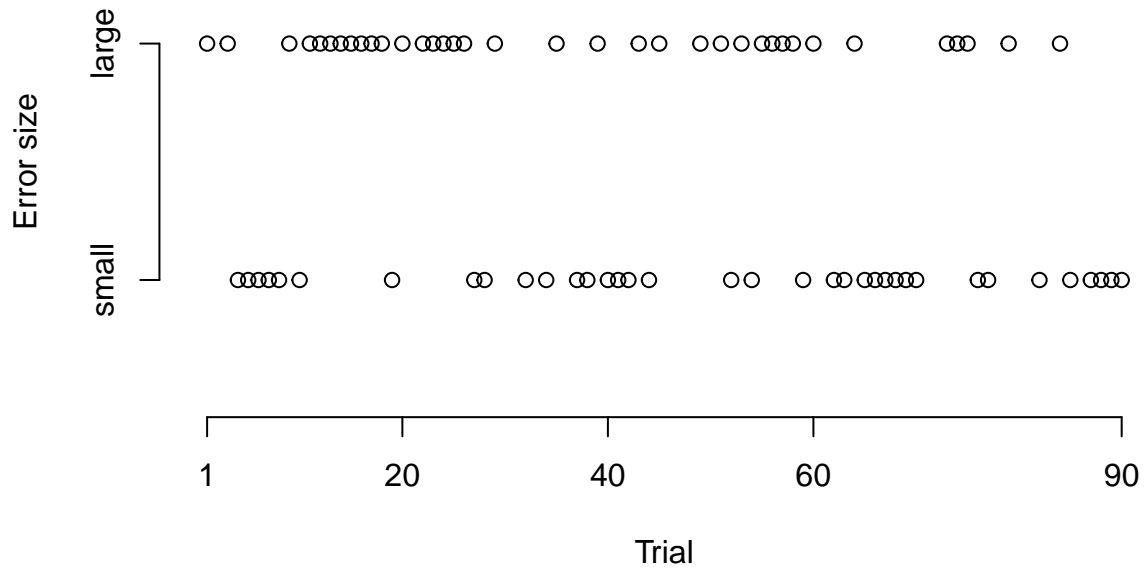
Mirror Errors across trials: Participant 28



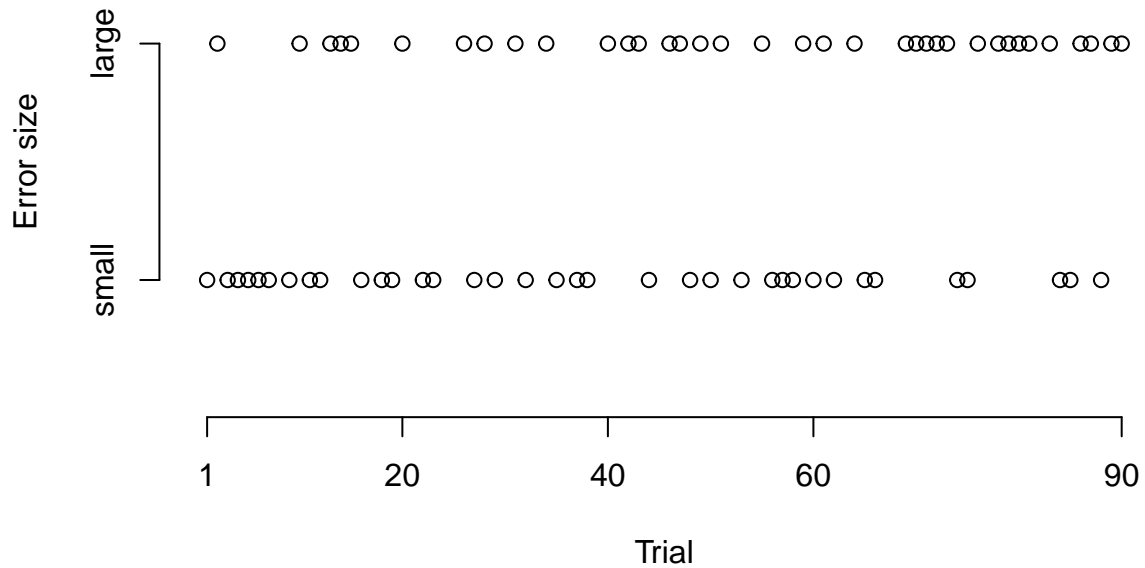
Mirror Errors across trials: Participant 29



Mirror Errors across trials: Participant 30



Mirror Errors across trials: Participant 31

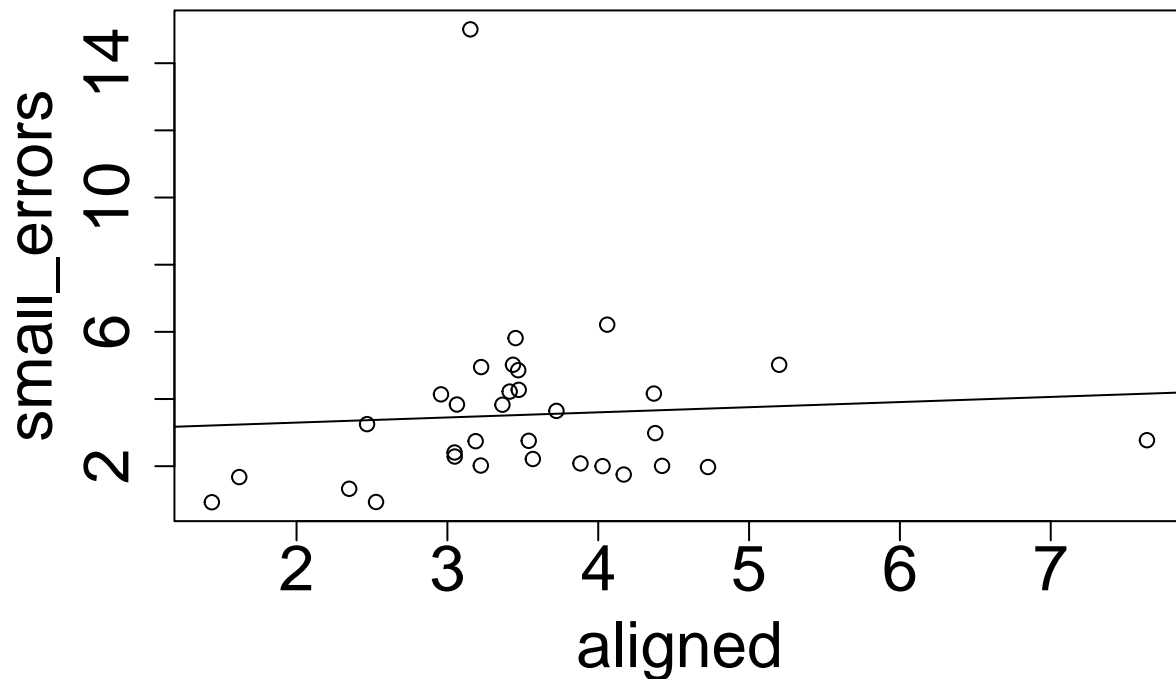


Aligned and Small Errors: Fixed Rotation

Every point is a participant (N=32), which contains the median aligned angular error and median small magnitude angular error. Small errors are just the lower 1/3 of all perturbation trials.

```
getGroupALROTAngularErrors()
```

Median absolute errors



```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 0.36562, df = 30, p-value = 0.7172
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2887974 0.4058716
## sample estimates:
## cor
## 0.06660371
```

Aligned and Small Errors: Mirror

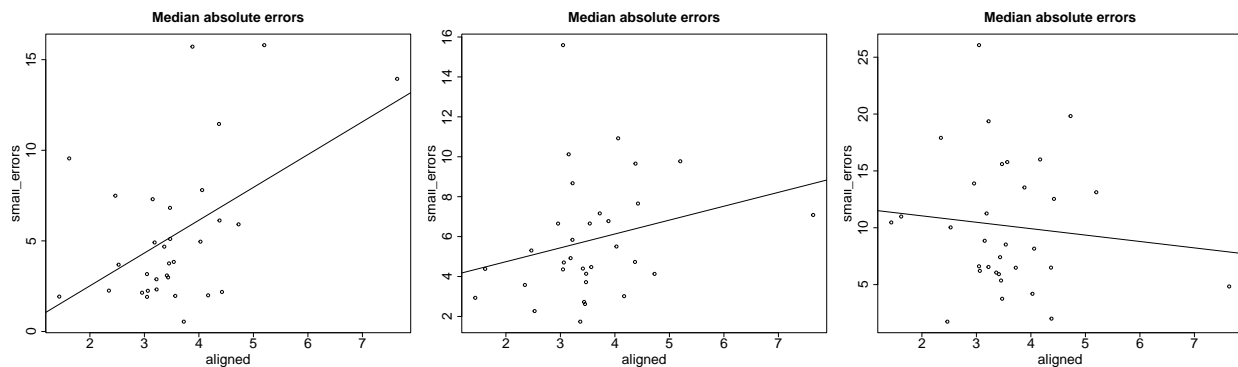
Plots are split according to different target locations (perfect compensation at 15, 30, and 45 degrees).

```
getGroupALMIRAngularErrors()
```

```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 3.0816, df = 30, p-value = 0.004385
```

```
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## 0.1708585 0.7165233
## sample estimates:
##      cor
## 0.4903393
```

```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 1.4414, df = 30, p-value = 0.1598
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.1033716 0.5540249
## sample estimates:
##      cor
## 0.2544957
```



```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = -0.59749, df = 30, p-value = 0.5547
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.4404813 0.2496923
## sample estimates:
##      cor
## -0.1084435
```

Aligned and Small Errors: Random (Before rotation)

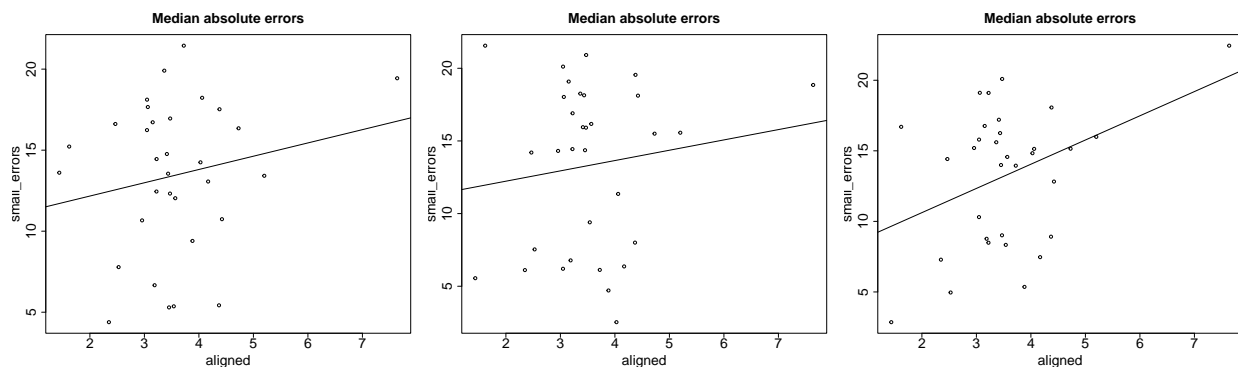
Plots are split according to different target locations (perfect compensation at 15, 25, and 35 degrees).

```
getGroupALRDMROTAngularErrors()
```

```
##
```

```
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 1.0831, df = 30, p-value = 0.2874
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.1659265 0.5083019
## sample estimates:
##      cor
## 0.1939913
```

```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 0.76305, df = 30, p-value = 0.4514
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2213629 0.4643348
## sample estimates:
##      cor
## 0.1379815
```



```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 2.3115, df = 30, p-value = 0.02785
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## 0.04641783 0.64945963
## sample estimates:
##      cor
## 0.3888185
```

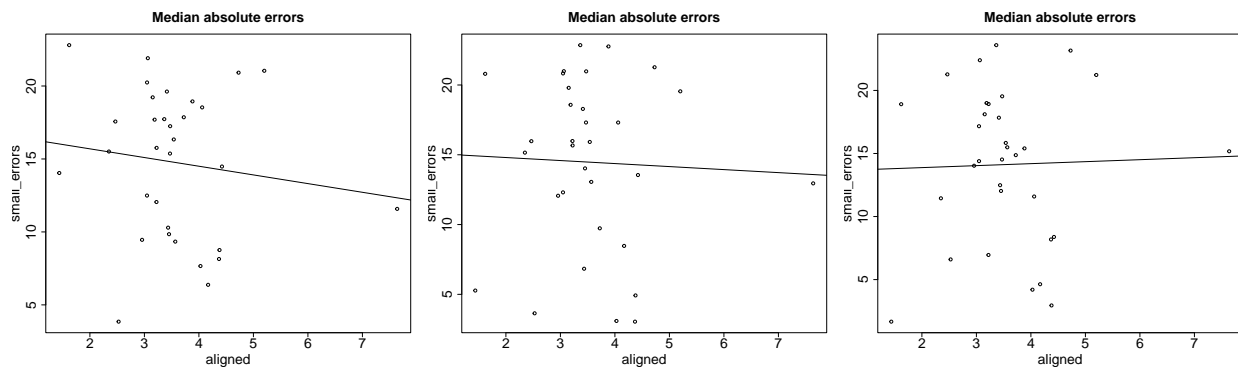
Aligned and Small Errors: Random (Before mirror)

Plots are split according to different target locations (perfect compensation at 15, 25, and 35 degrees).

```
getGroupALRDMIRAngularErrors()
```

```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = -0.71743, df = 30, p-value = 0.4787
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.4578350 0.2291988
## sample estimates:
## cor
## -0.1298748
```

```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = -0.21431, df = 30, p-value = 0.8318
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.3825764 0.3138749
## sample estimates:
## cor
## -0.03909827
```



```
##
## Pearson's product-moment correlation
##
## data: aligned and small_errors
## t = 0.15527, df = 30, p-value = 0.8776
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.3235539 0.3733421
## sample estimates:
## cor
## 0.02833714
```