tapas

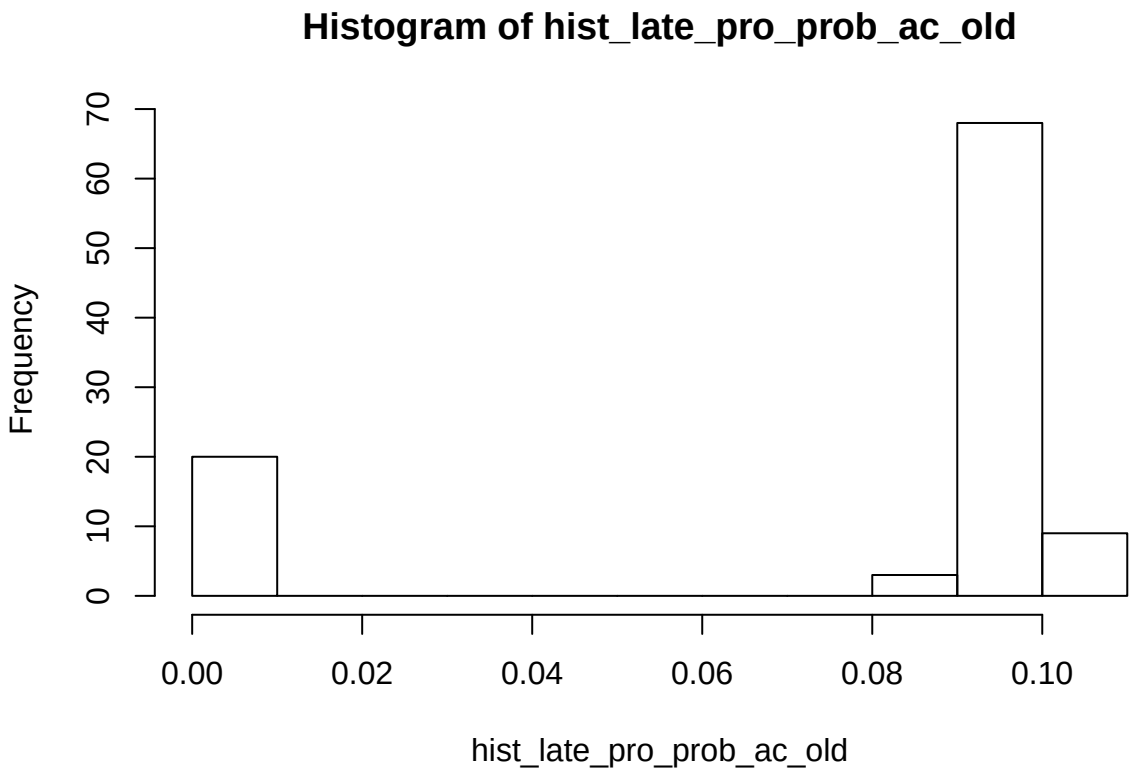
Martynka

5/15/2020

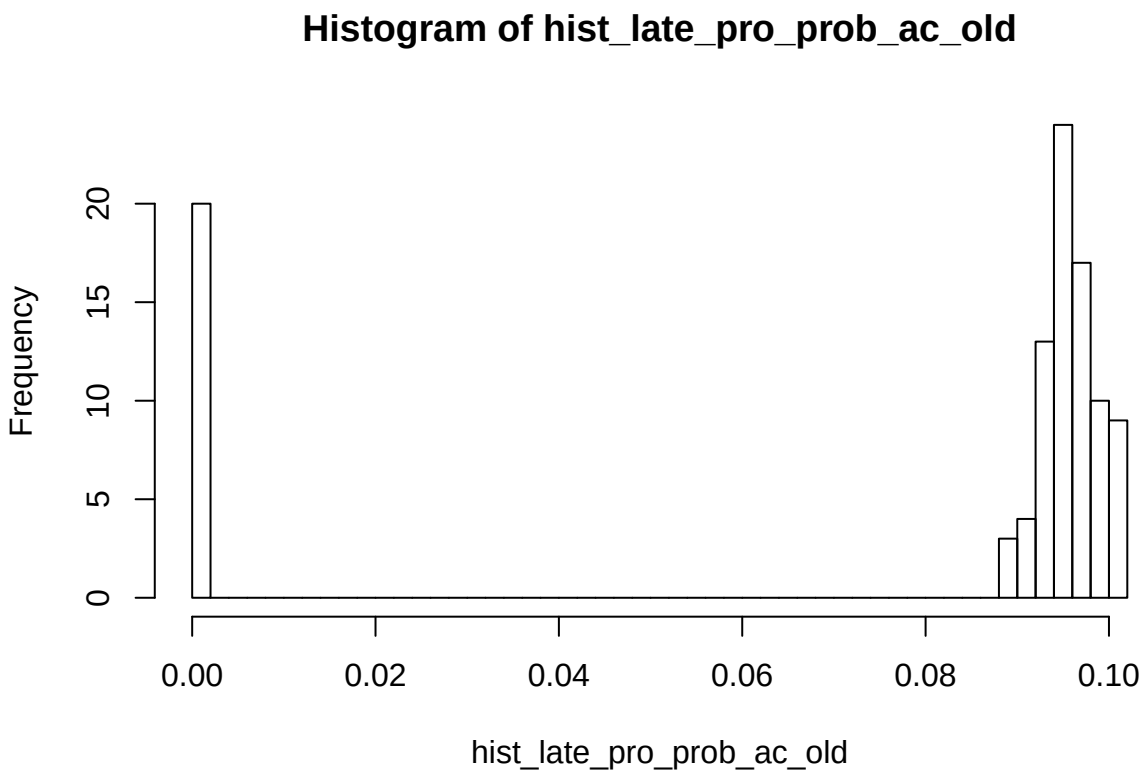
```
bayes_list <- list()
k = 1
for (i in 1:80){
    filename = sprintf("/Users/mplome/data/young_old/%d.csv", i)
    bayes_list[[k]] <- read.csv(filename)
    k = k+1
}

mergelist = do.call("rbind", bayes_list)
```

```
hist_late_pro_prob_ac_old = array(0,dim = c(1,100))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_prob_ac_old[i] = mean(temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==1, "late_
  temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==1, "late_pro_prob"  ]
}
hist(hist_late_pro_prob_ac_old, breaks = 10)
```



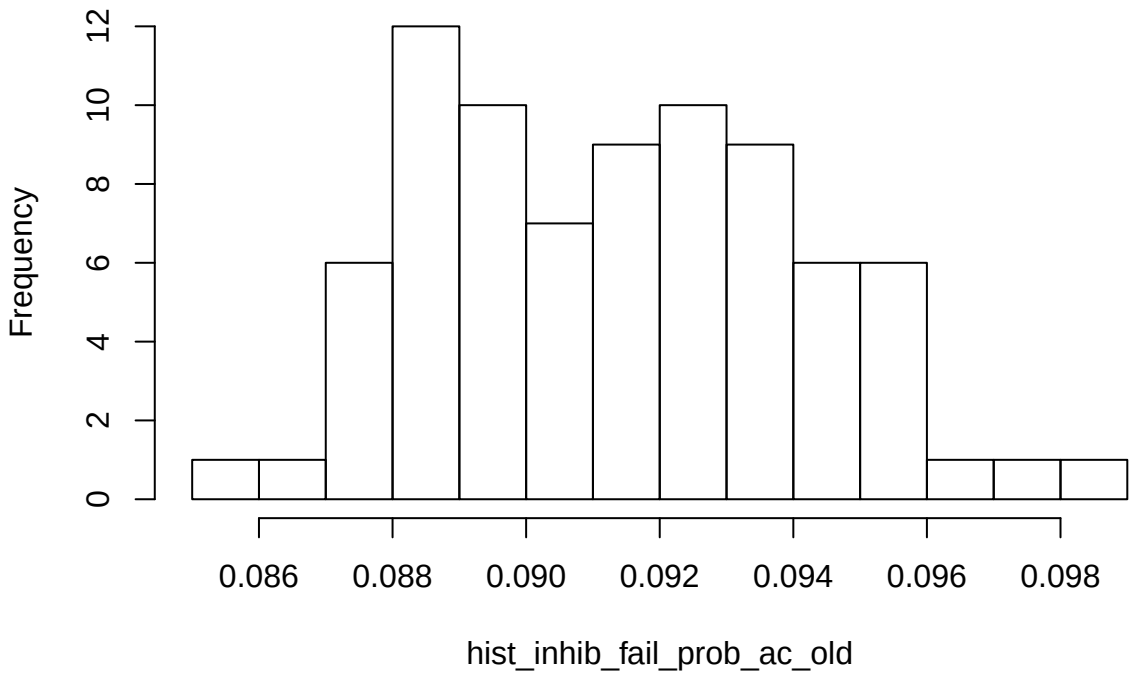
```r
hist(hist_late_pro_prob_ac_old, breaks = 50)
```




```r
quantile(hist_late_pro_prob_ac_old, prob =c(0.025, 0.975),na.rm = TRUE)
```

```
##      2.5%     97.5%
## 0.0000000 0.1005403
```

```r
hist_inhib_fail_prob_ac_old = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_prob_ac_old[i] = mean(temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==1, "inhi
  temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==1, "inhib_fail_prob"  ]
}
hist(hist_inhib_fail_prob_ac_old, breaks = 10)
```



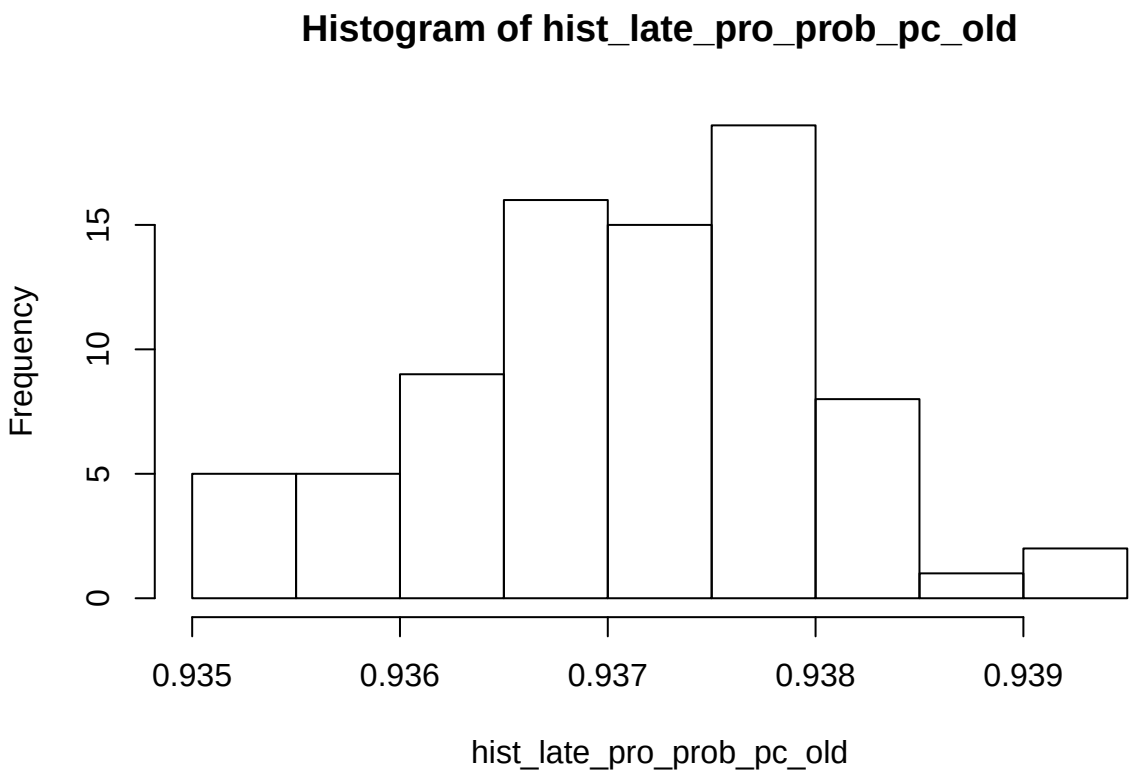

```
quantile(hist_inhib_fail_prob_ac_old, prob =c(0.025, 0.975),na.rm = TRUE)
```

```
##       2.5%      97.5%
## 0.08743376 0.09603102
```

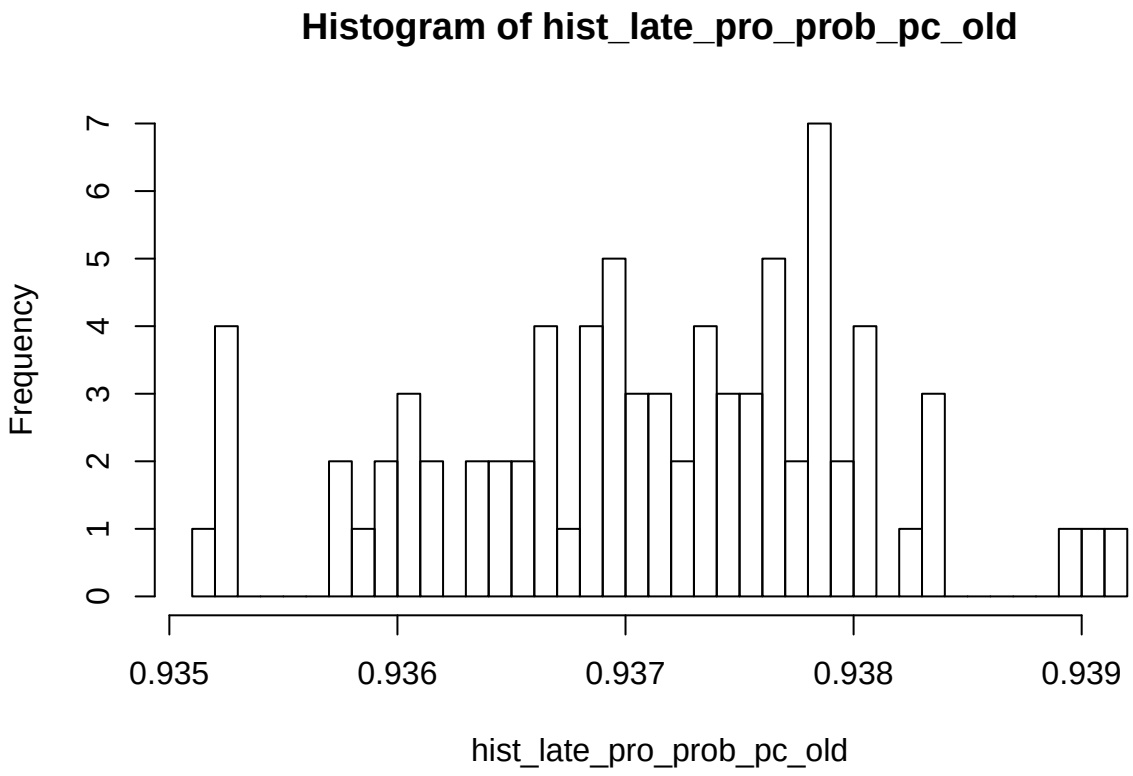
old SUBJECTS

PROSACCADES

```
hist_late_pro_prob_pc_old = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_prob_pc_old[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "late_
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "late_pro_prob"  ]
}
hist(hist_late_pro_prob_pc_old, breaks = 10)
```



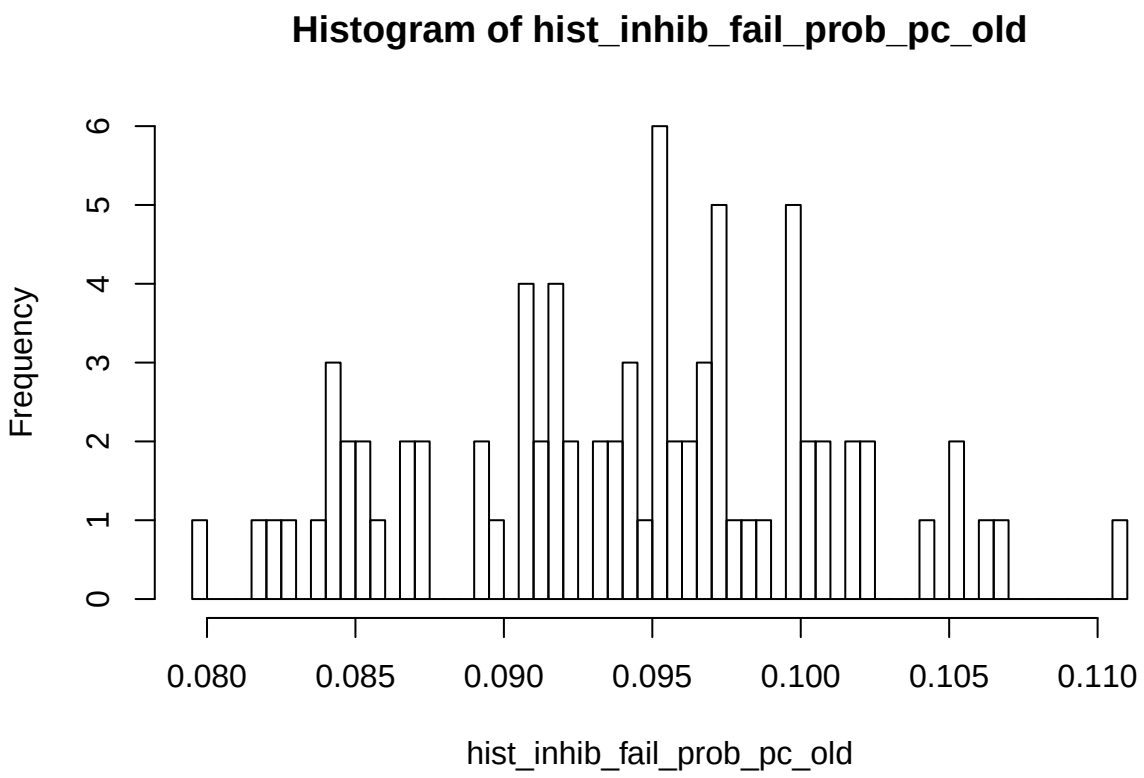

```
hist(hist_late_pro_prob_pc_old, breaks = 50)
```



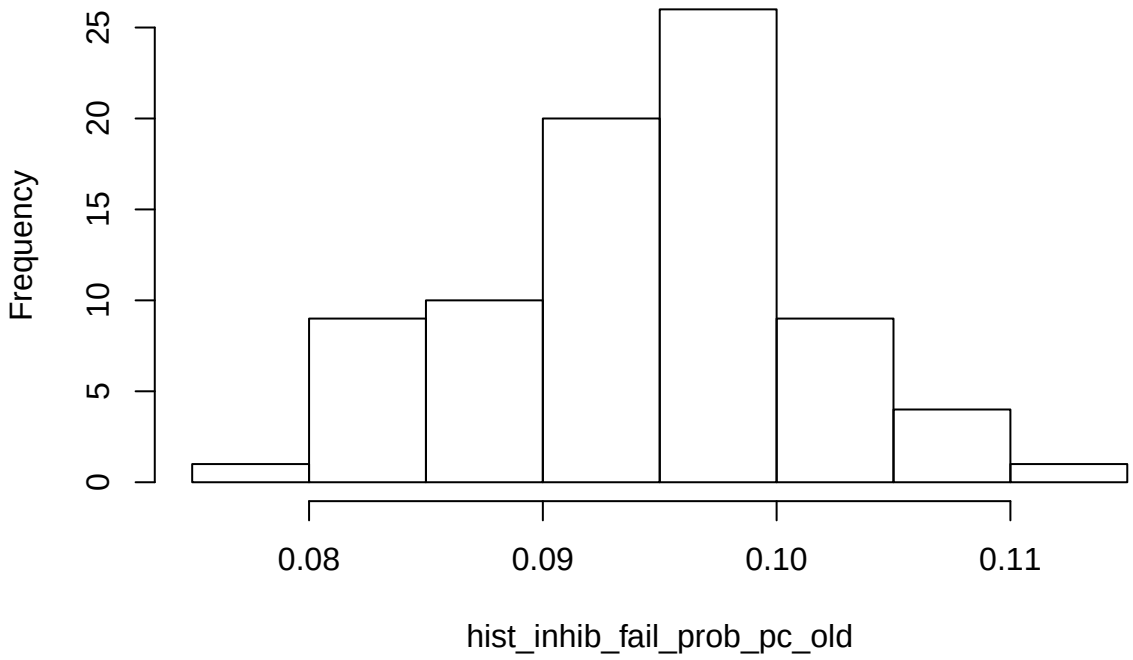

```
quantile(hist_late_pro_prob_pc_old, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##      2.5%     97.5%
## 0.9352583 0.9389377
```

```r
hist_inhib_fail_prob_pc_old = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_prob_pc_old[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "inhi
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "inhib_fail_prob"  ]
}
hist(hist_inhib_fail_prob_pc_old, breaks = 50)
```



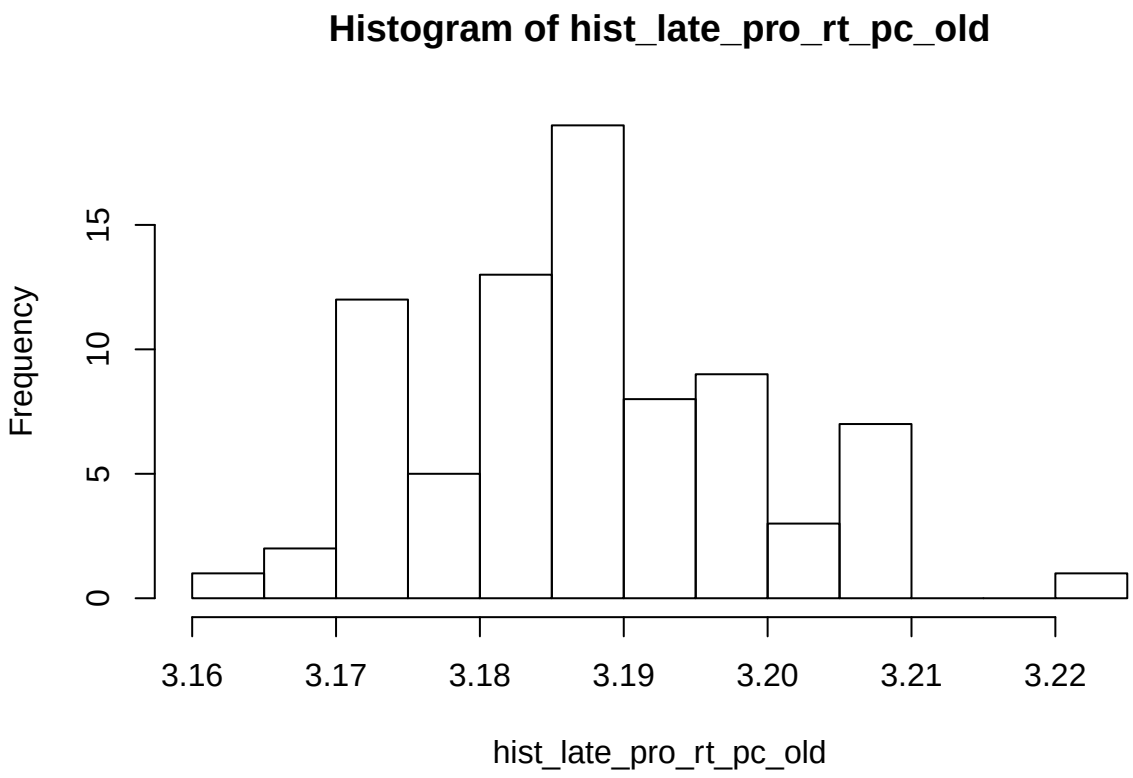

```r
hist(hist_inhib_fail_prob_pc_old, breaks = 10)
```



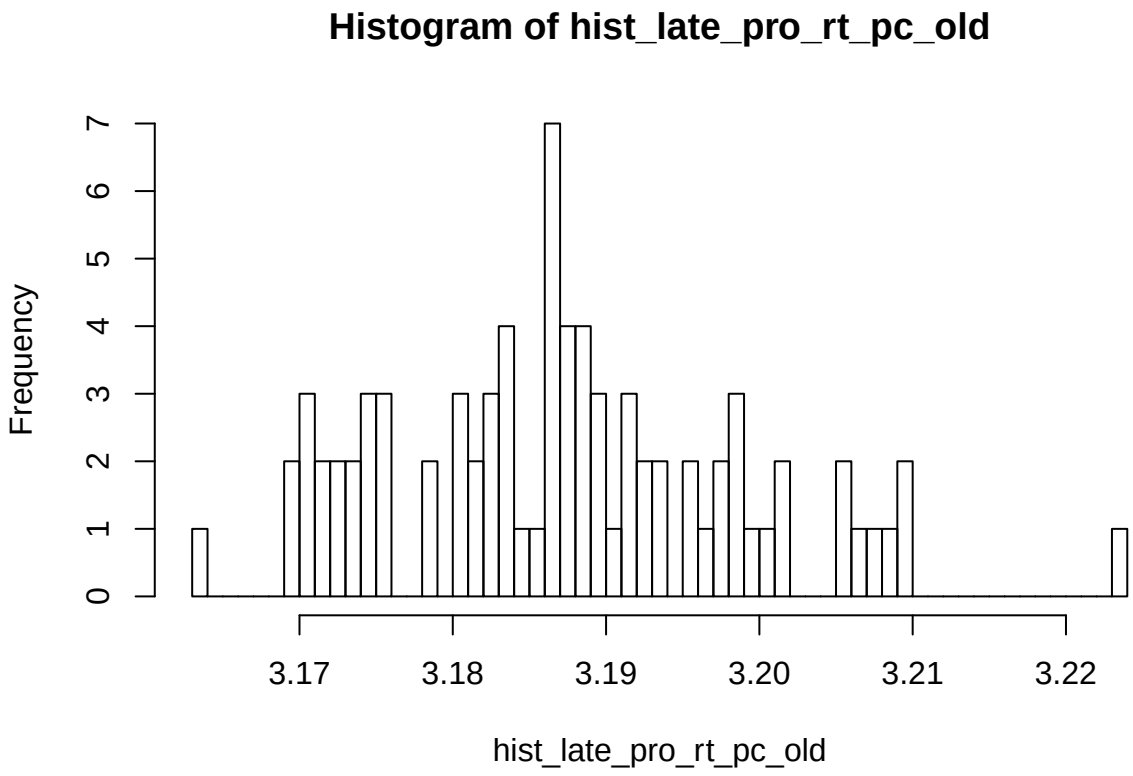

```
quantile(hist_inhib_fail_prob_pc_old, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##       2.5%      97.5%
## 0.08205096 0.10640988
```

```
hist_late_pro_rt_pc_old = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_rt_pc_old[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "late_pr
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "late_pro_rt"  ]
}
hist(hist_late_pro_rt_pc_old, breaks = 10)
```



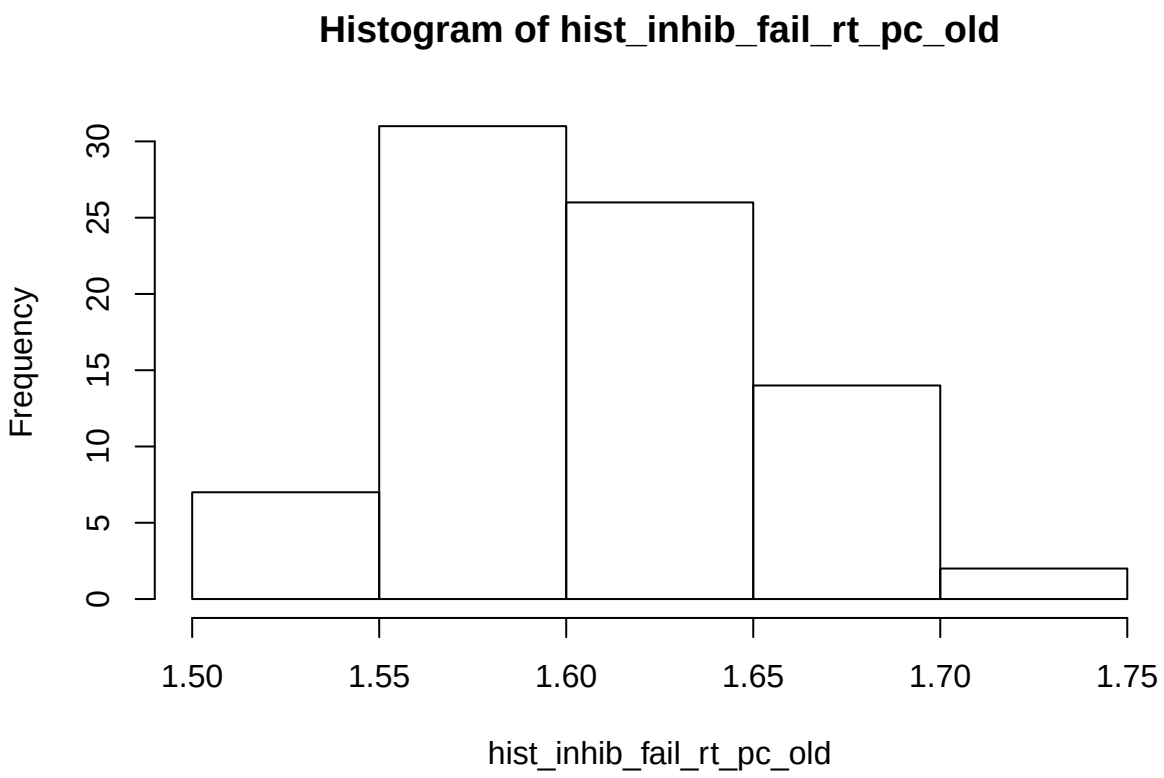

```
hist(hist_late_pro_rt_pc_old, breaks = 50)
```



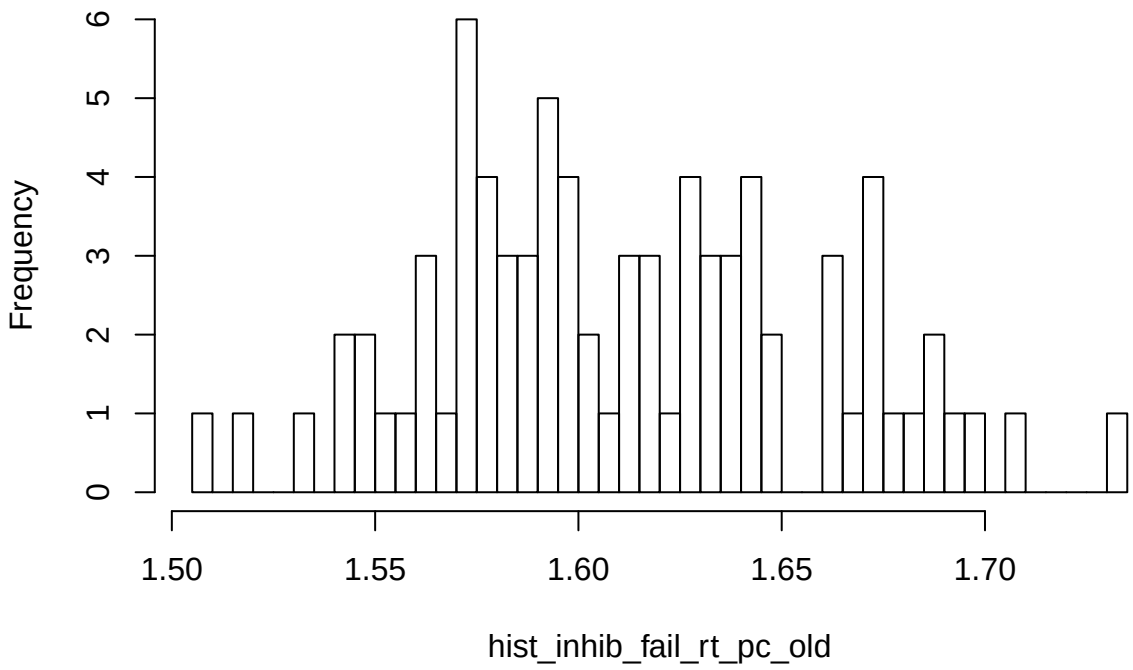

```
quantile(hist_late_pro_rt_pc_old, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##     2.5%    97.5%
## 3.169868 3.209429
```

```r
hist_inhib_fail_rt_pc_old = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_rt_pc_old[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "inhib
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==1, "inhib_fail_rt"  ]
}
hist(hist_inhib_fail_rt_pc_old)
```




```r
hist(hist_inhib_fail_rt_pc_old, breaks = 50)
```




```
quantile(hist_inhib_fail_rt_pc_old, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##     2.5%    97.5%
## 1.530832 1.695327
```

```
which(hist_inhib_fail_rt_pc_old>1000)
```

```
## integer(0)
```

```
#hist(hist_inhib_fail_rt_pc_old[-59])
```

young SUBJECTS

```
bayes_list <- list()
k = 1
for (i in 1:80){
    filename = sprintf("/Users/mplome/data/young_old/%d.csv", i)
    bayes_list[[k]] <- read.csv(filename)
    k = k+1
}
```

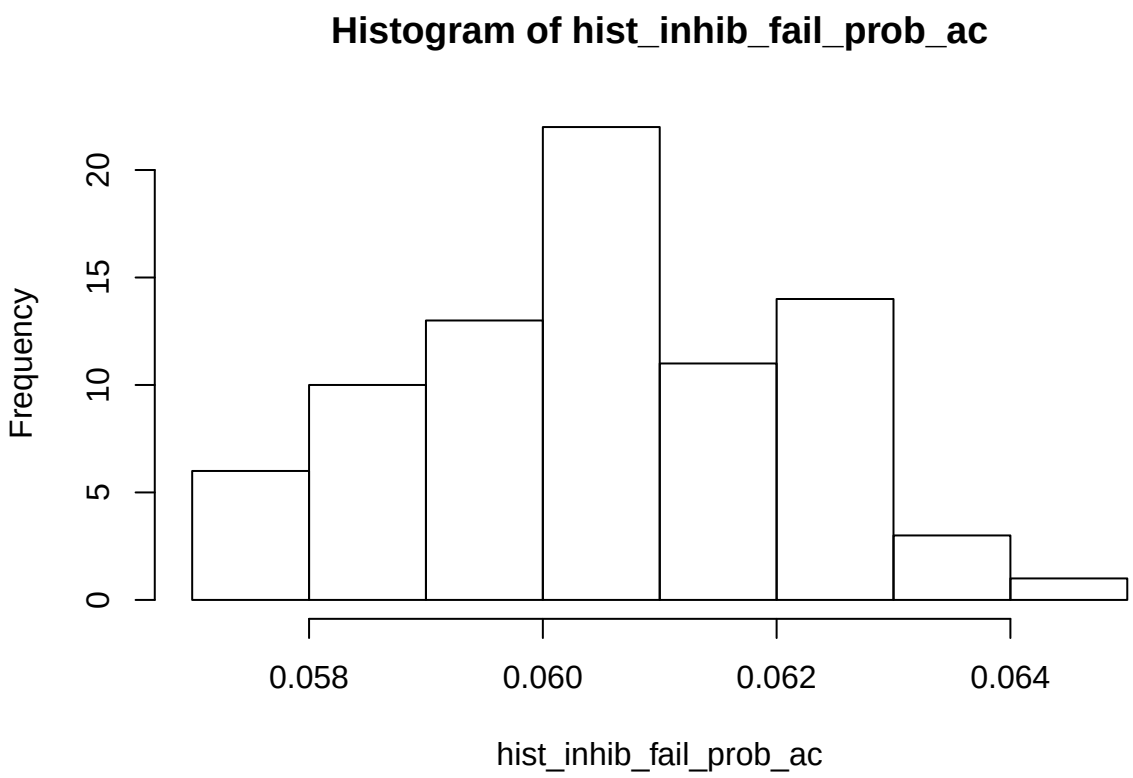
ANTISACCADES

```
hist_late_pro_prob_ac = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_prob_ac[i] = mean(temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==0, "late_pro_
  temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==0, "late_pro_prob"  ]
}
#hist(hist_late_pro_prob_ac)
quantile(hist_late_pro_prob_ac, prob =c(0.025, 0.975),na.rm = TRUE)
```

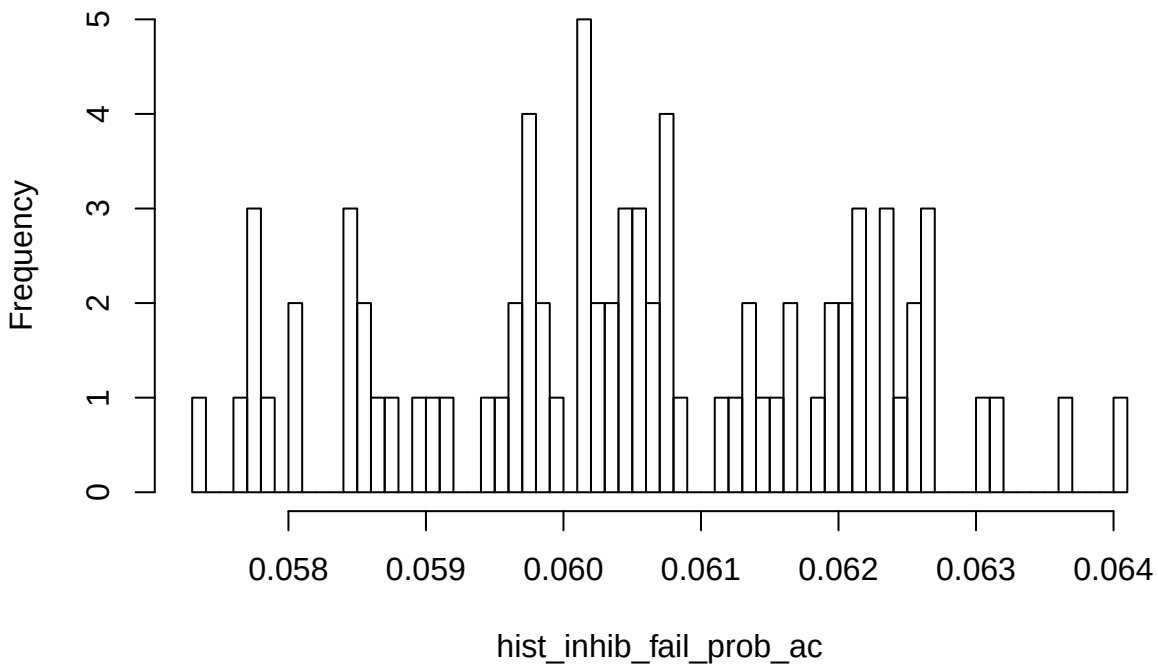
```
##       2.5%      97.5%
```

```
## 0.04090116 0.04598266
```

```
hist_inhib_fail_prob_ac = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_prob_ac[i] = mean(temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==0, "inhib_fa
  temp_bayes[temp_bayes$conditions ==1 & temp_bayes$age ==0, "inhib_fail_prob"  ]
}
hist(hist_inhib_fail_prob_ac)
```




```
hist(hist_inhib_fail_prob_ac, breaks = 50)
```

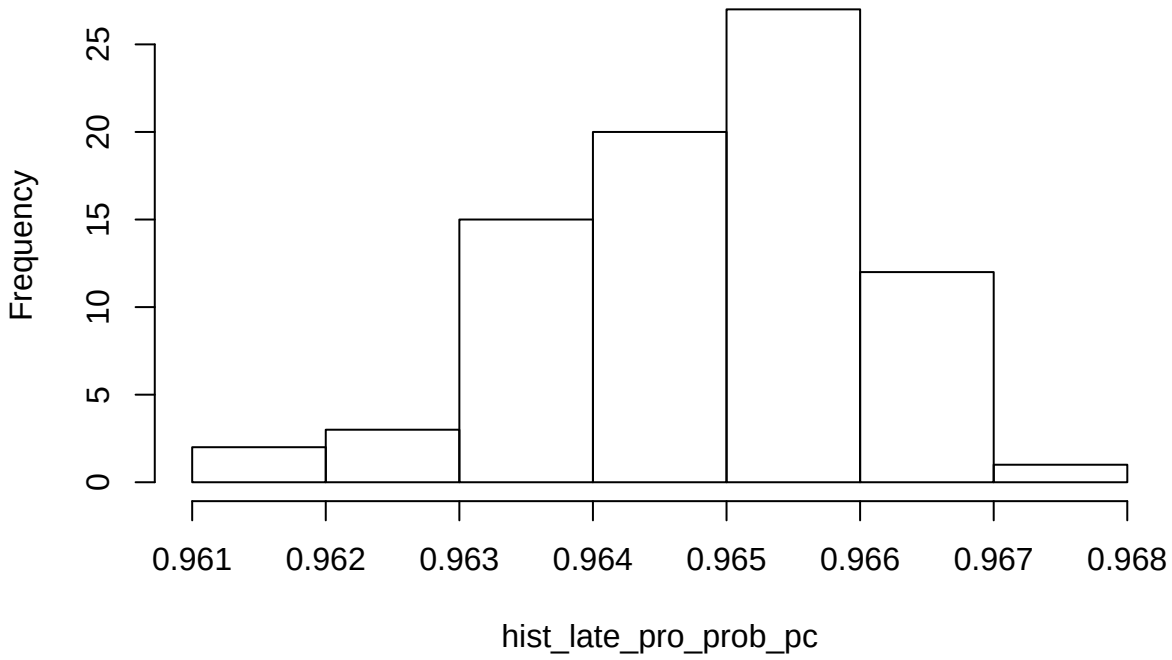



```
quantile(hist_inhib_fail_prob_ac, prob =c(0.025, 0.975),na.rm = TRUE)
```

```
##       2.5%      97.5%
## 0.05769969 0.06320563
```

PROSACCADES

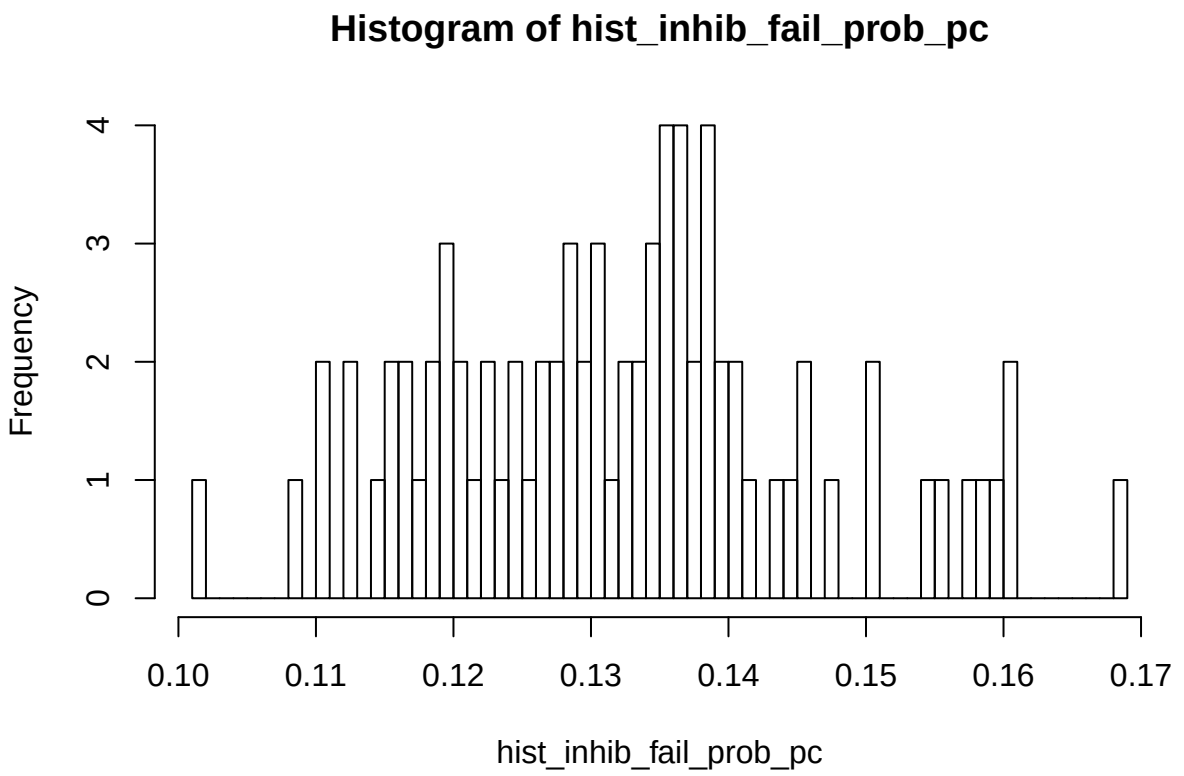
```
hist_late_pro_prob_pc = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_prob_pc[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "late_pro_
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "late_pro_prob"  ]
}
hist(hist_late_pro_prob_pc)
```




```
quantile(hist_late_pro_prob_pc, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##      2.5%     97.5%
## 0.9626859 0.9669421
```

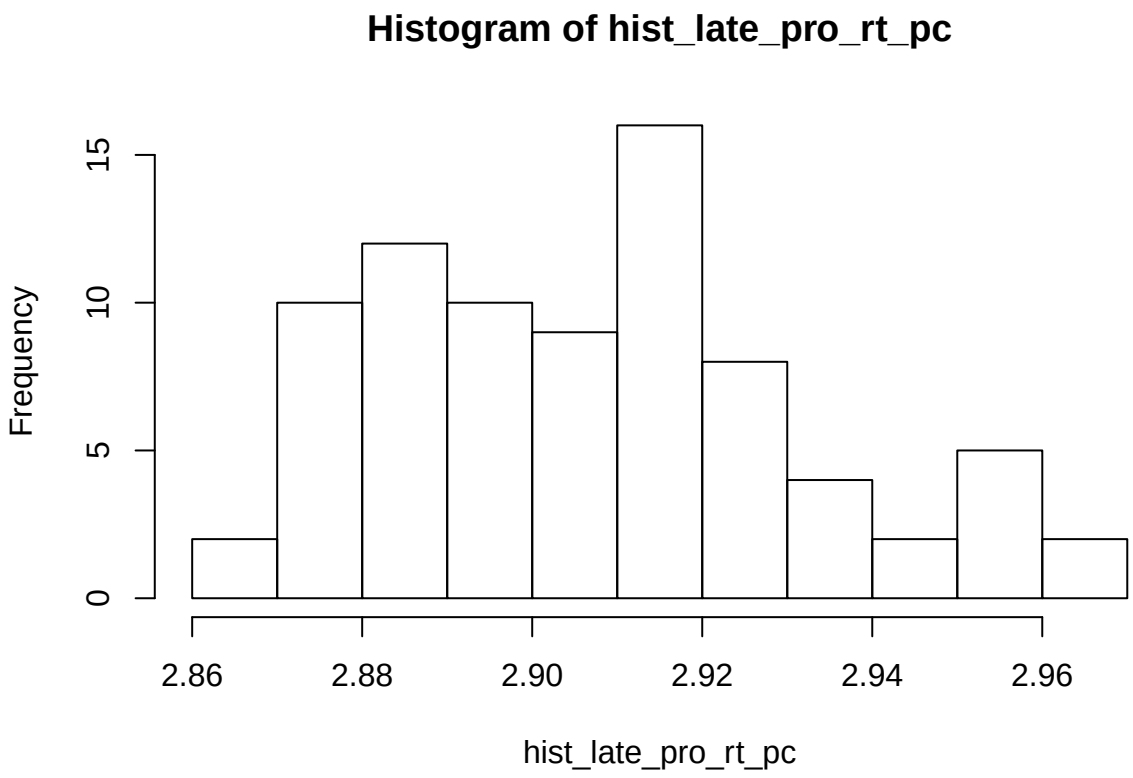
```
hist_inhib_fail_prob_pc = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_prob_pc[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "inhib_fa
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "inhib_fail_prob"  ]
}
hist(hist_inhib_fail_prob_pc, breaks = 50)
```



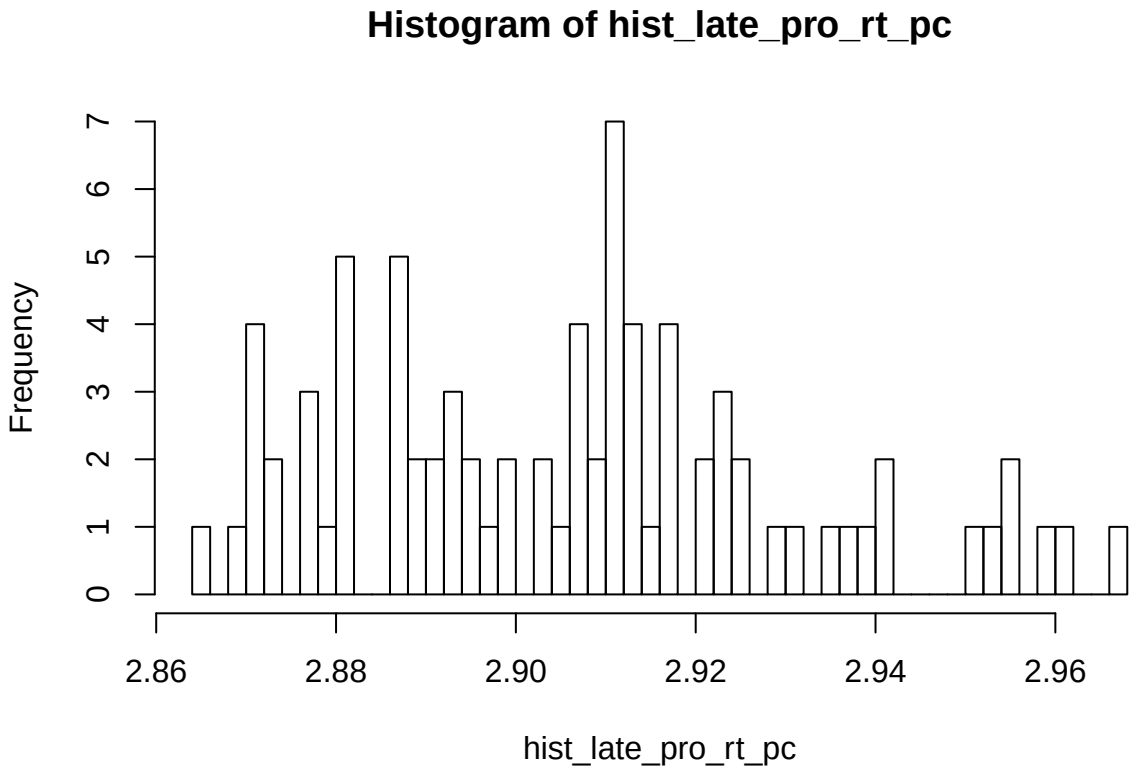

```
quantile(hist_inhib_fail_prob_pc, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##      2.5%     97.5%
## 0.1100959 0.1603250
```

```
hist_late_pro_rt_pc = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_late_pro_rt_pc[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "late_pro_rt
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "late_pro_rt"  ]
}
hist(hist_late_pro_rt_pc, breaks = 10)
```



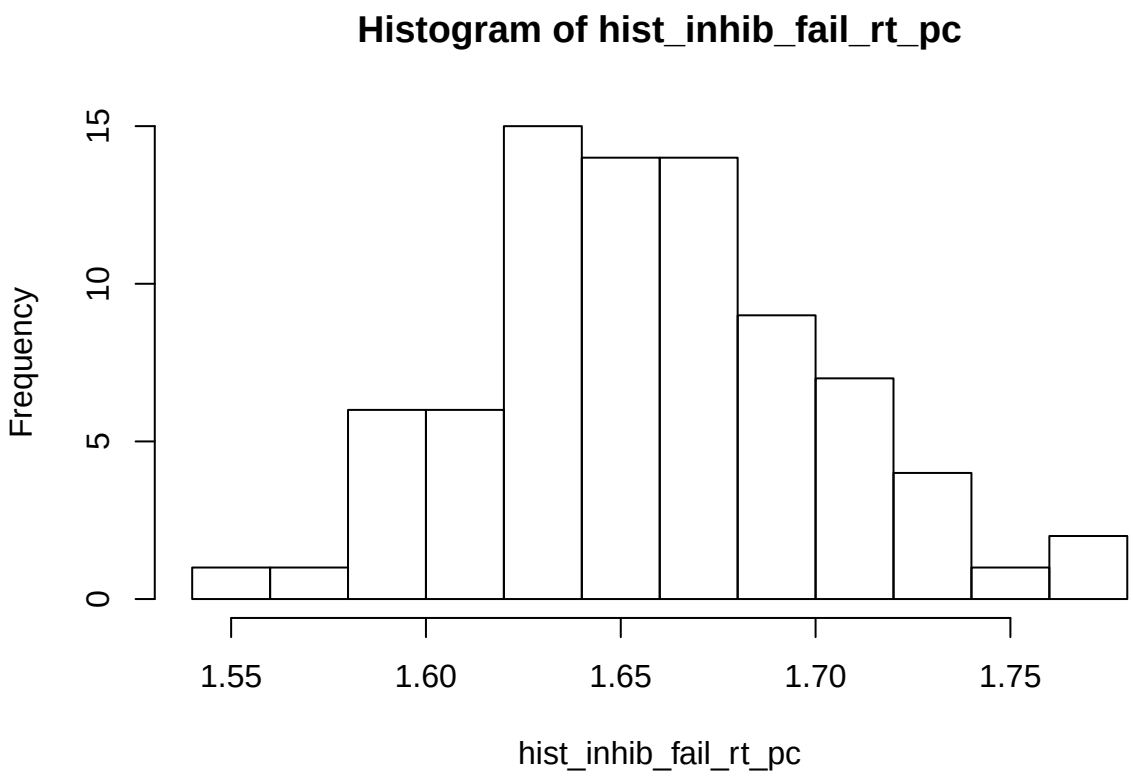

```
hist(hist_late_pro_rt_pc, breaks = 50)
```



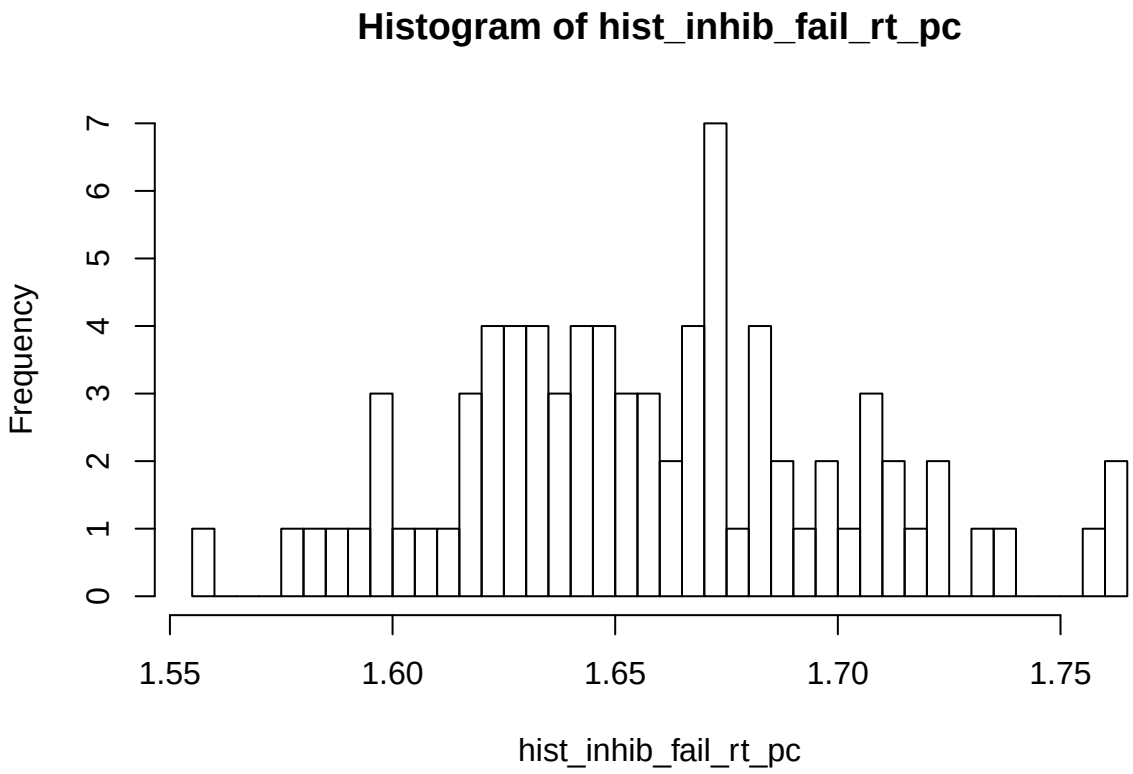

```
quantile(hist_late_pro_rt_pc, prob =c(0.025, 0.975), na.rm = TRUE)
```

```
##     2.5%    97.5%
## 2.870034 2.959759
```

```r
hist_inhib_fail_rt_pc = array(0,dim = c(1,80))
for (i in 1:80){
  temp_bayes = bayes_list[[i]]
  hist_inhib_fail_rt_pc[i] = mean(temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "inhib_fai
  temp_bayes[temp_bayes$conditions ==2 & temp_bayes$age ==0, "inhib_fail_rt"  ]
}
hist(hist_inhib_fail_rt_pc, breaks = 10)
```




```r
hist(hist_inhib_fail_rt_pc, breaks = 50)
```

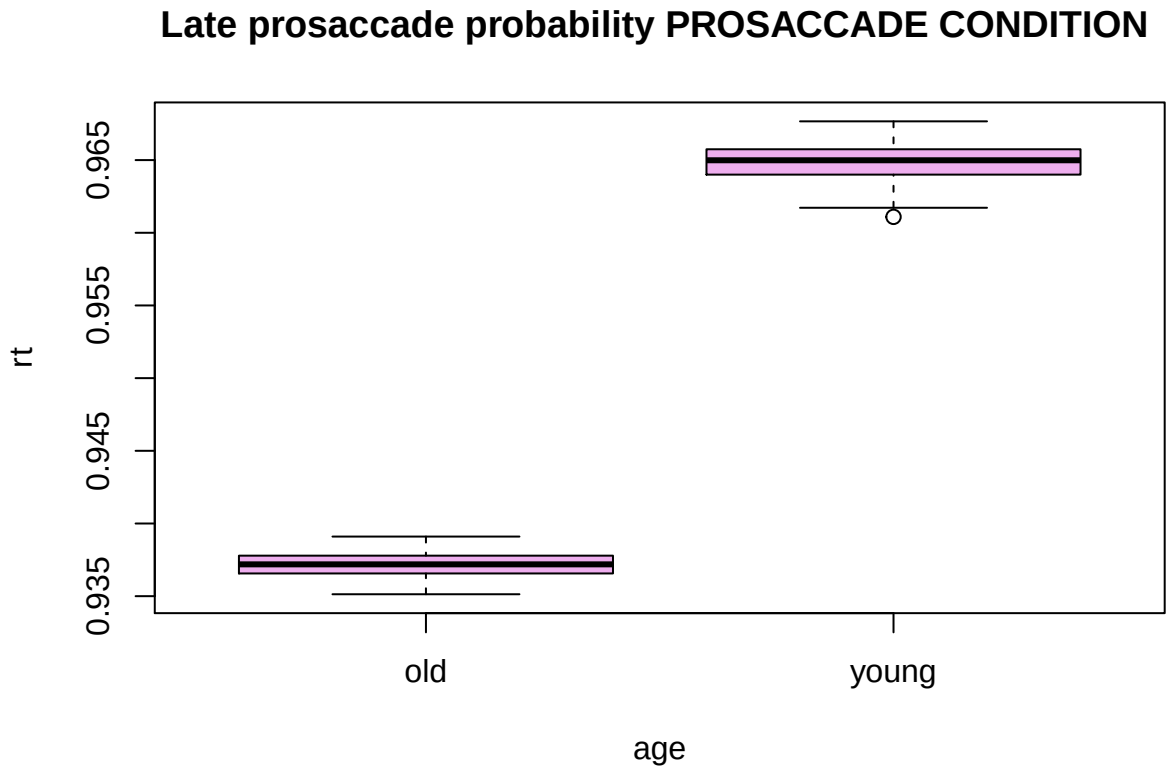



```
quantile(hist_inhib_fail_rt_pc, prob =c(0.025, 0.975), na.rm = TRUE)
```

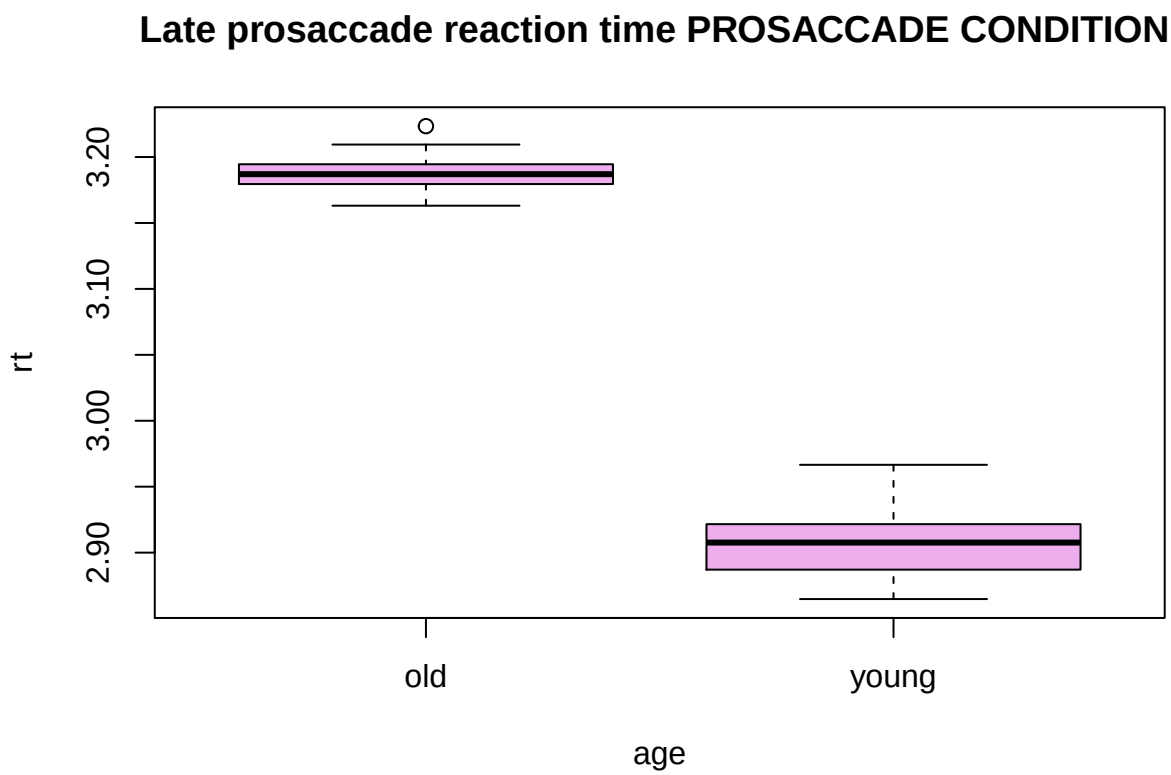
```
##     2.5%    97.5%
## 1.582502 1.757556
```

BOXPLOTS

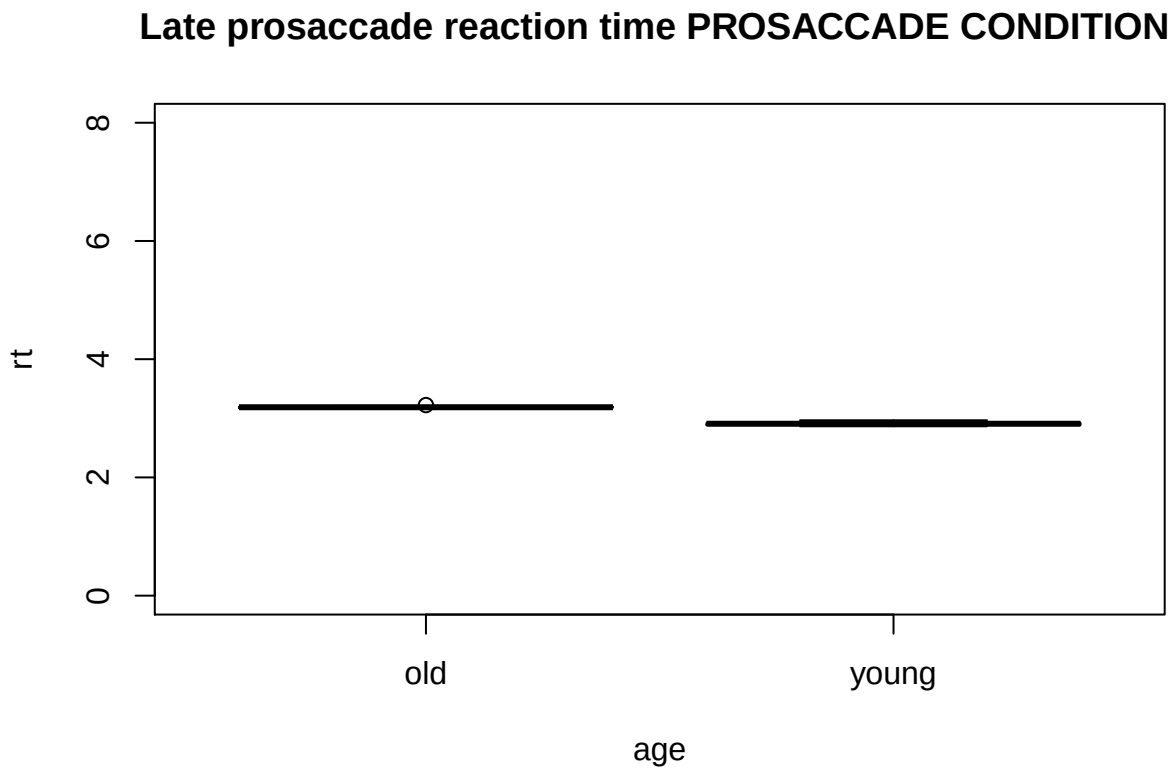
```
a = data.frame(rt=t(hist_late_pro_prob_pc_old), age='old')
b = data.frame(rt=t(hist_late_pro_prob_pc), age='young')
data = rbind(a,b)
boxplot(rt ~ age, data=data,  col = "plum2", main = "Late prosaccade probability PROSACCADE CONDITION "
```



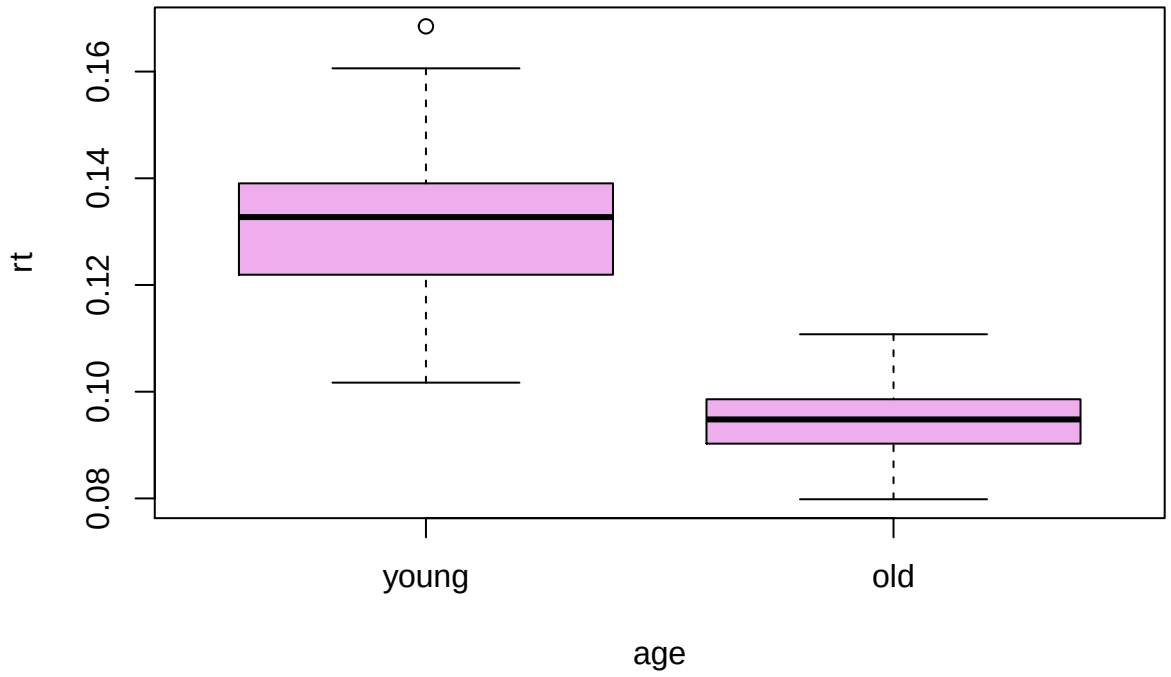

```
a = data.frame(rt=t(hist_late_pro_rt_pc_old), age='old')
b = data.frame(rt=t(hist_late_pro_rt_pc), age='young')
data = rbind(a,b)
boxplot(rt ~ age, data=data,  col = "plum2", main = "Late prosaccade reaction time PROSACCADE CONDITION
```



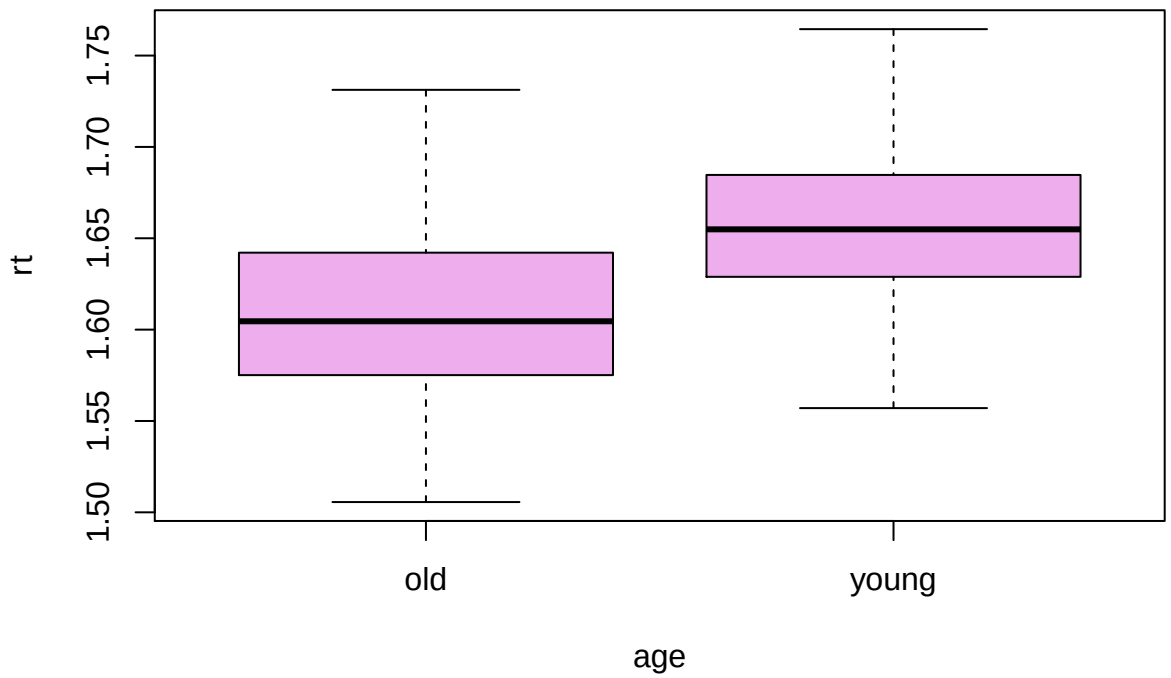
```
databest = data[data$rt<8,]
boxplot(rt ~ age, data=databest,  col = "plum2", main = "Late prosaccade reaction time PROSACCADE CONDI
```




```
b = data.frame(rt=t(hist_inhib_fail_prob_pc_old), age='old')
a = data.frame(rt=t(hist_inhib_fail_prob_pc), age='young')
data = rbind(a,b)
boxplot(rt ~ age, data=data,  col = "plum2", main = "Inhibitory fail probability PROSACCADE CONDITION "
```




```
a = data.frame(rt=t(hist_inhib_fail_rt_pc_old), age='old')
b = data.frame(rt=t(hist_inhib_fail_rt_pc), age='young')
data = rbind(a,b)
boxplot(rt ~ age, data=data,  col = "plum2", main = "Inhibitory fail reaction time PROSACCADE CONDITION
```



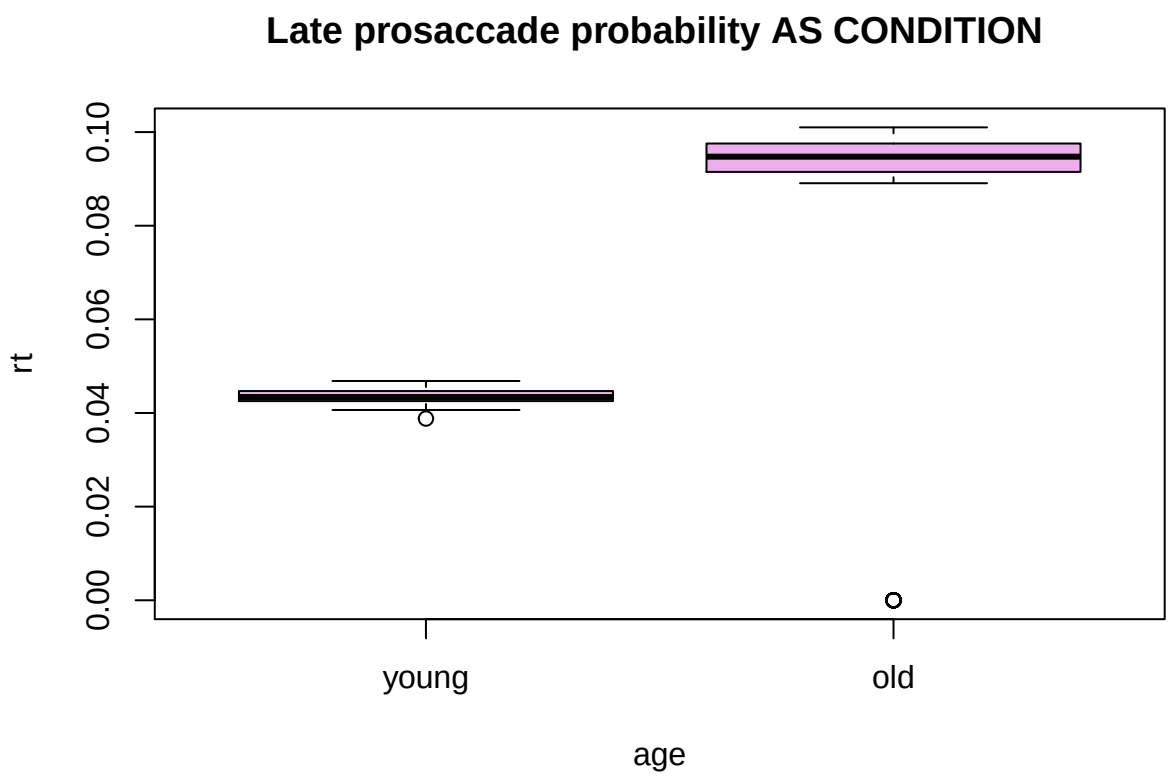
```r
lm3 = lm(inhib_fail_rt ~ age , data = mergelist)
summary(lm3)
```

```
##
## Call:
## lm(formula = inhib_fail_rt ~ age, data = mergelist)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.87418 -0.23853 -0.03649  0.20004  2.51314
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 1.518316   0.002273 668.081  < 2e-16 ***
## age         0.017589   0.003237   5.434 5.53e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3474 on 46078 degrees of freedom
## Multiple R-squared:  0.0006405,  Adjusted R-squared:  0.0006188
## F-statistic: 29.53 on 1 and 46078 DF,  p-value: 5.527e-08
```

```r
#plot(lm3)
```

```r
b = data.frame(rt=t(hist_late_pro_prob_ac_old), age='old')
a = data.frame(rt=t(hist_late_pro_prob_ac), age='young')
data = rbind(a,b)

boxplot(rt ~ age, data=data,  col = "plum2", main = "Late prosaccade probability AS CONDITION ")
```



```
boxplot(rt ~ age, data=data,  col = "plum2", main = "Late prosaccade probability AS CONDITION ", ylim =
```