R Course: Lesson 1

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```
load("rcourse_lesson1_environment.RData")
```

Data

Here is a look at our two data frames. First is the one we read in, the second is our subset of just the bilinguals' data.

```
head(data)
```

```
##         group type       rt
## 1 monolingual <NA> 910.7722
## 2 monolingual <NA> 887.0629
## 3 monolingual <NA> 886.0760
## 4 monolingual <NA> 906.1512
## 5 monolingual <NA> 897.7662
## 6 monolingual <NA> 896.8191
```
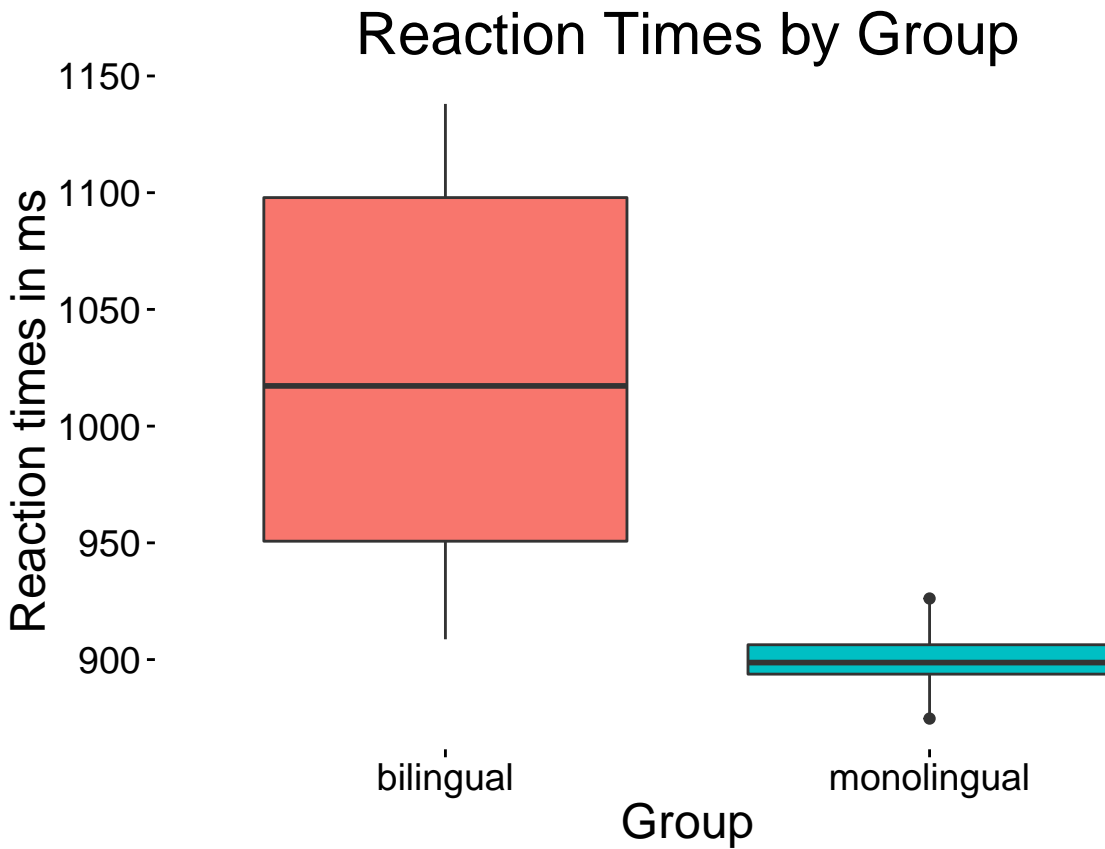
```
head(data_bl)
```

```
##       group type       rt
## 1 bilingual high 931.8969
## 2 bilingual high 953.4020
## 3 bilingual high 934.2860
## 4 bilingual high 961.9091
## 5 bilingual high 960.9247
## 6 bilingual high 950.0086
```

Figures

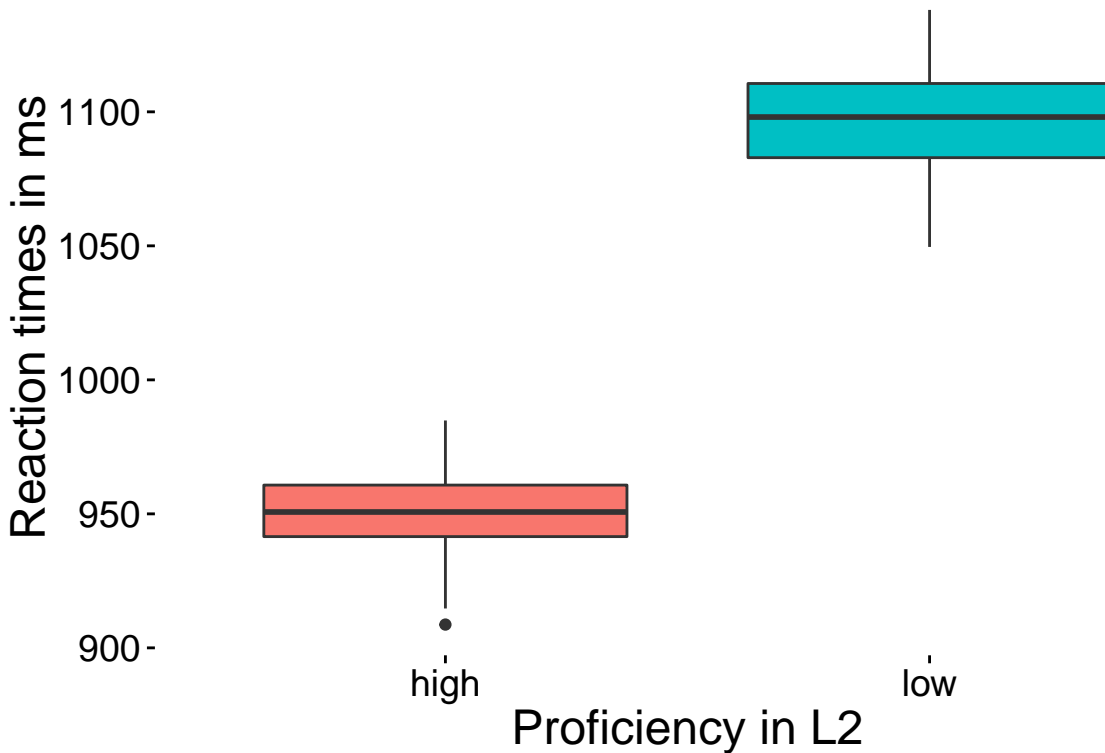Here's a figure of the bilinguals compared to the monolinguals.

```
data.plot
```

Reaction Times by Group

Here's a figure of the bilinguals separted by L2 proficiency.

```
data_bl.plot
```

Reaction Times by L2 Proficiency Level

Descriptive Statistics

When looking at the summary statistics by group, bilinguals have much more variance than monolinguals.

`data_sum`

```
##         group    rt_mean      rt_sd    rt_max    rt_min
## 1   bilingual 1023.7333 75.540518 1138.0258 908.6916
## 2 monolingual  899.8162  9.649395  926.1507 874.7162
```

However, when summarising within type of bilingual (level of L2 proficiency) we see where the variance comes from.

`data_bl_sum`

```
##   type  rt_mean     rt_sd     rt_max     rt_min
## 1 high  950.315 14.49285   984.8486   908.6916
## 2  low 1097.152 19.25997 1138.0258 1049.5934
```

To show how all three groups compare we can make a final figure with the bilinguals separated out by L2 profiency and still include the monolinguals.

`data_blwml.plot`

Reaction Times by L2 Proficiency Level