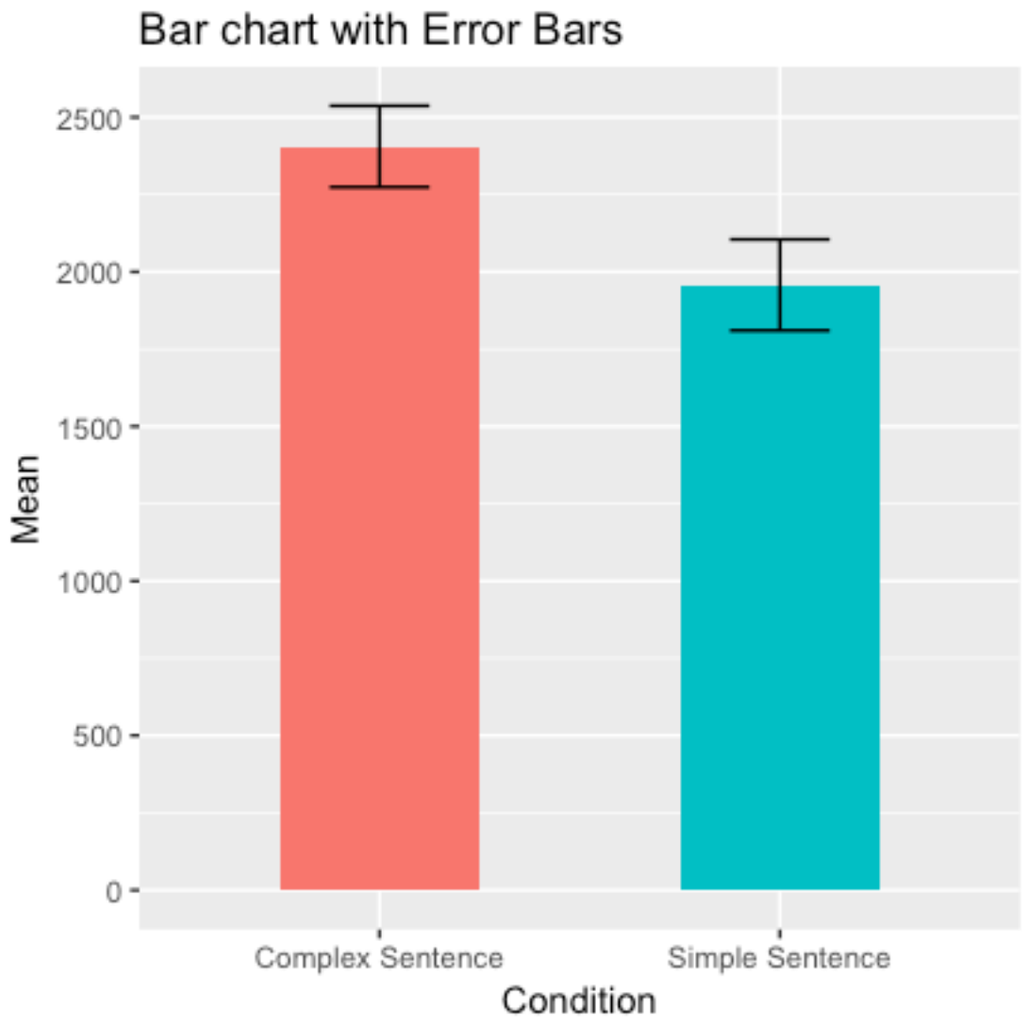
Visualising Your Data

- R has a number of in built graphics functions, but you're more likely to use functions from within the `ggplot2` and `yarrr` packages. `ggplot2` is part of the `tidyverse` so if you have used `library(tidyverse)` then `ggplot2` will already be loaded.

```
> library(ggplot2)
> library(yarrr)
```

Bar Graphs



Bar graphs tend to be quite limited in terms of what they communicate. Here they communicate the means for levels of a factor and information about variance. But they don't tell us anything about the *distribution* of the data.

```
> data_summ <- data_long %>% group_by(Condition) %>% summarise(Mean = mean(RT), sd = sd(RT))
> ggplot(data_summ, aes(x = Condition, y = Mean, group = Condition, fill = Condition, ymin =
Mean-sd, ymax = Mean+sd)) + geom_bar(stat = "identity", width = .5) + geom_errorbar(width = .25)
+  ggtitle("Bar chart with Error Bars") + guides(fill = FALSE)
```