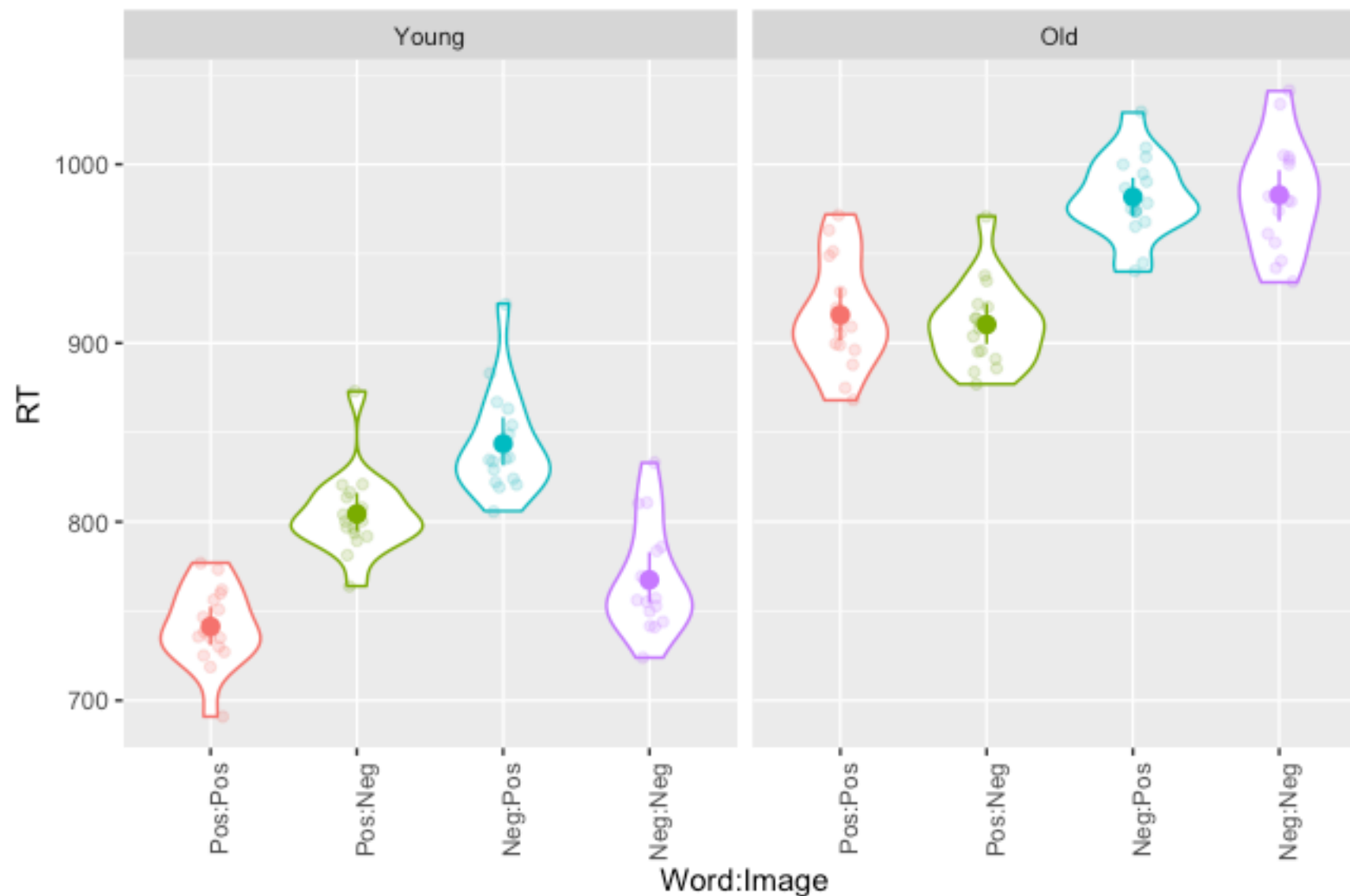


```
ggplot(data, aes(x = Word:Image, y = RT, colour = Word:Image)) +
  geom_violin() + geom_jitter(width = .1, alpha = .2) +
  stat_summary(fun.data = "mean_cl_boot") +
  theme(axis.text.x = element_text(angle = 90, hjust = 1)) +
  facet_wrap(~ Age) + guides(colour = FALSE)
```



We can see it looks like the Young and Old groups are behaving a little differently.

We need to build our model with two repeated and one between participants factor...

```
model <- aov_4(RT ~ Word * Image * Age + (1 + Word * Image |  
Participant), data)
```

We are asking for the model to be built using the three factors - this will give us three possible main effects, 3 possible 2-way interactions, and a possible 3-way interaction...

The `aov_4` function knows which factors are repeated and which are between from the model structure - note that between participant factors shouldn't appear in the random effects term - if you have only between factors then the term should be something like `(1 | Participant)`...