

statistician

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Q1 - Are men more likely than women to say yes to a second date?

Conduct a hypothesis test on whether the men are more likely than women to say yes to a second date.

H0 men are equally likely to say yes to another date **HA** men are more likely to say yes to another date

$$H_0 : \mu_M = \mu_F \quad H_A : \mu_M > \mu_F$$

```
library(dplyr)
```

```
##  
## Attaching package: 'dplyr'  
  
## The following objects are masked from 'package:stats':  
##  
## filter, lag  
  
## The following objects are masked from 'package:base':  
##  
## intersect, setdiff, setequal, union
```

```
load("SpeedDating.rda")  
speedDatingCleanedQ1 <- SpeedDating %>%  
  filter(!is.na(DecisionM)) %>%  
  filter(!is.na(DecisionF))
```

Q2 What value do *men* find most important when considering a second date?

note: Maybe we visualize this using side by side boxplots? average rating by decision - that way we can see which variable seems to differentiate between a yes and a no compare average rating per trait per yes/no response Which category's ratings has the greatest difference between yes/no?

Q2 What value do *women* find most important when considering a second date?

average rating by decision - that way we can see which variable seems to differentiate between a yes and a no compare average rating per trait per yes/no response Which category's ratings has the greatest difference between yes/no?

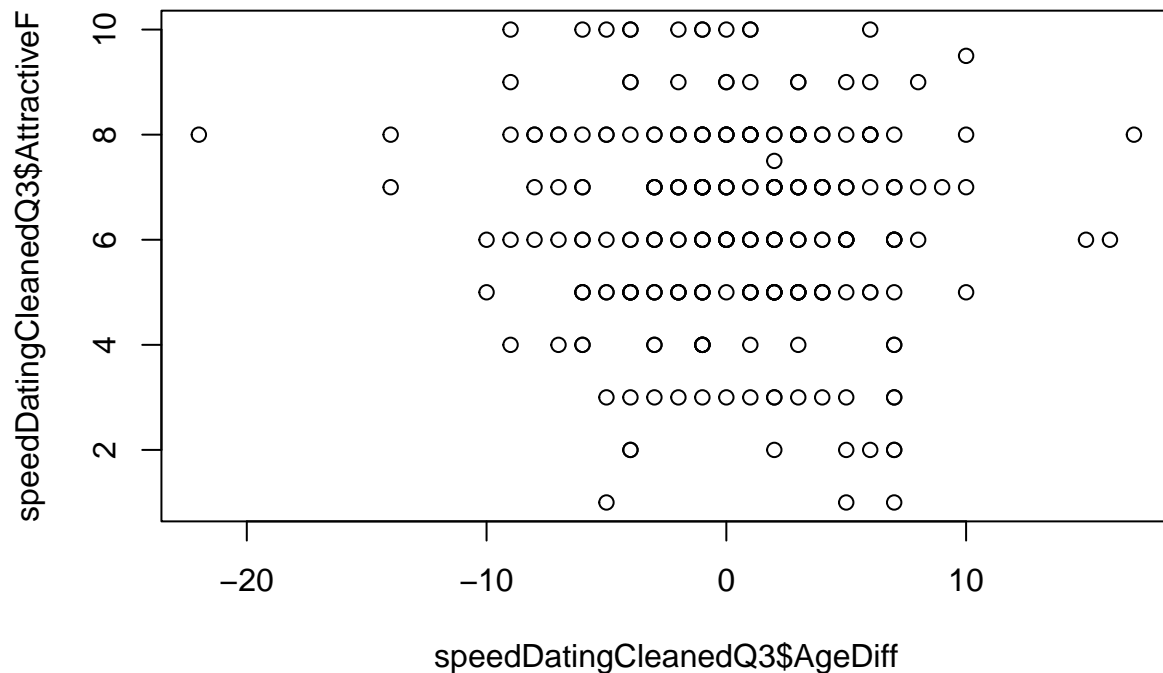
Q3. Do larger age gaps affect if either a man or a woman view each other as attractive?

There are a lot of different age gaps in the data so we are curious if a certain age gap would correlate with either gender viewing the other as less attractive.

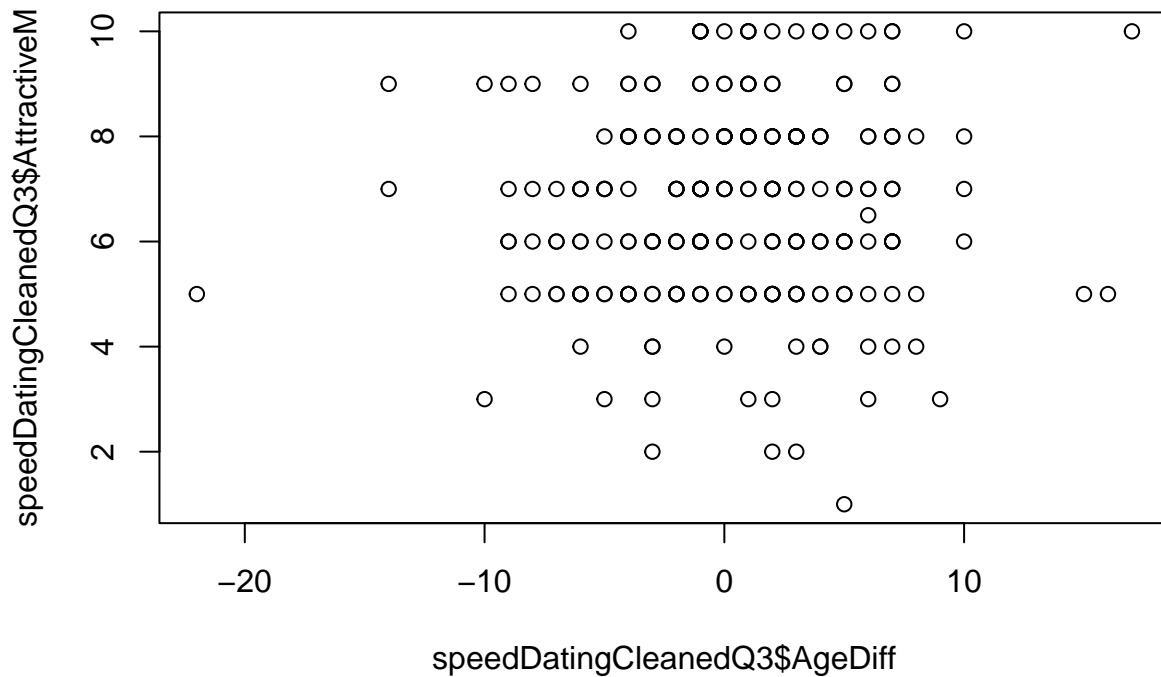
We could standardize the data since everyone might be reporting differently. One person might just give lower ratings even if the person they are rating is higher.

```
speedDatingCleanedQ3 <- SpeedDating %>%  
  filter(!is.na(AgeM)) %>%  
  filter(!is.na(AgeF)) %>%  
  filter(!is.na(AttractiveF)) %>%  
  filter(!is.na(AttractiveM)) %>%  
  mutate(AgeDiff= (AgeM-AgeF))
```

```
plot(speedDatingCleanedQ3$AgeDiff, speedDatingCleanedQ3$AttractiveF )
```



```
plot(speedDatingCleanedQ3$AgeDiff, speedDatingCleanedQ3$AttractiveM )
```



```
cor(speedDatingCleanedQ3$AgeDiff, speedDatingCleanedQ3$AttractiveF)
```

```
## [1] -0.06695631
```

```
cor(speedDatingCleanedQ3$AgeDiff, speedDatingCleanedQ3$AttractiveM )
```

```
## [1] 0.06434926
```

linear regression response = attractive predictor = age gap

I feel the relationship is weak and not clearly linear.

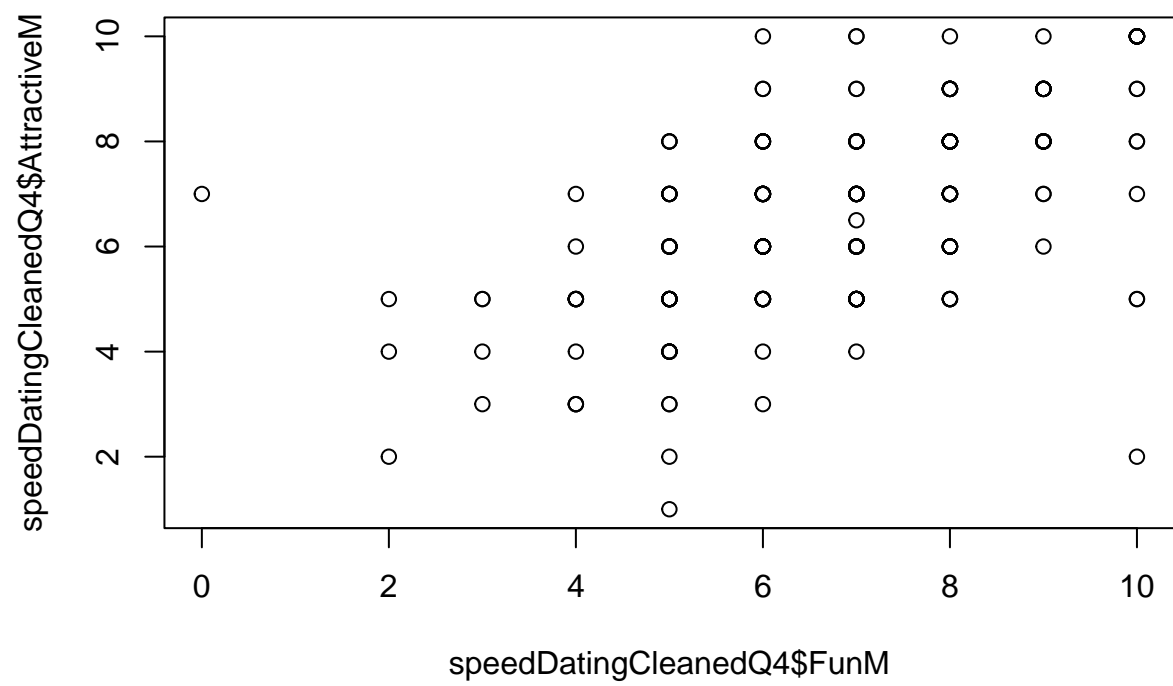
Q4

Does perceived intelligence predict attractiveness?

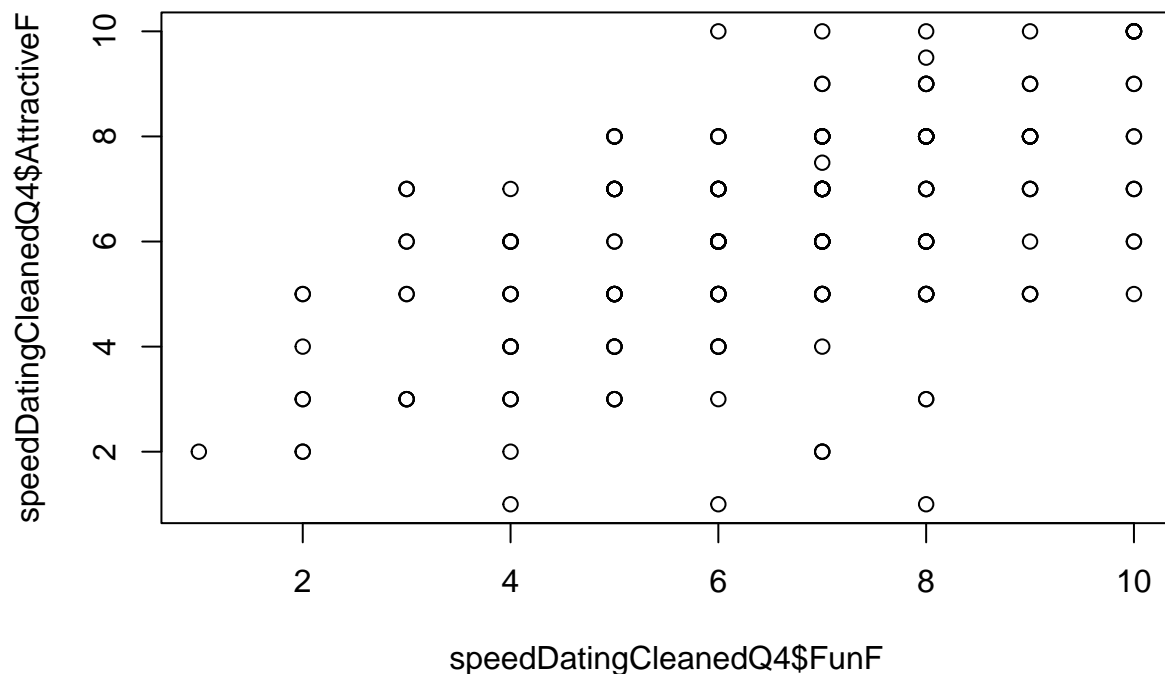
We could standardize the data since everyone might be reporting differently. One person might just give lower ratings even if the person they are rating is higher.

```
speedDatingCleanedQ4 <- SpeedDating %>%
  filter(!is.na(FunM)) %>%
  filter(!is.na(AttractiveM)) %>%
  filter(!is.na(FunF)) %>%
  filter(!is.na(AttractiveF))

plot(speedDatingCleanedQ4$FunM, speedDatingCleanedQ4$AttractiveM )
```



```
plot(speedDatingCleanedQ4$FunF, speedDatingCleanedQ4$AttractiveF )
```



```
cor(speedDatingCleanedQ4$FunM, speedDatingCleanedQ4$AttractiveM)
```

```
## [1] 0.6068201
```

```
cor(speedDatingCleanedQ4$FunF, speedDatingCleanedQ4$AttractiveF)
```

```
## [1] 0.5521096
```

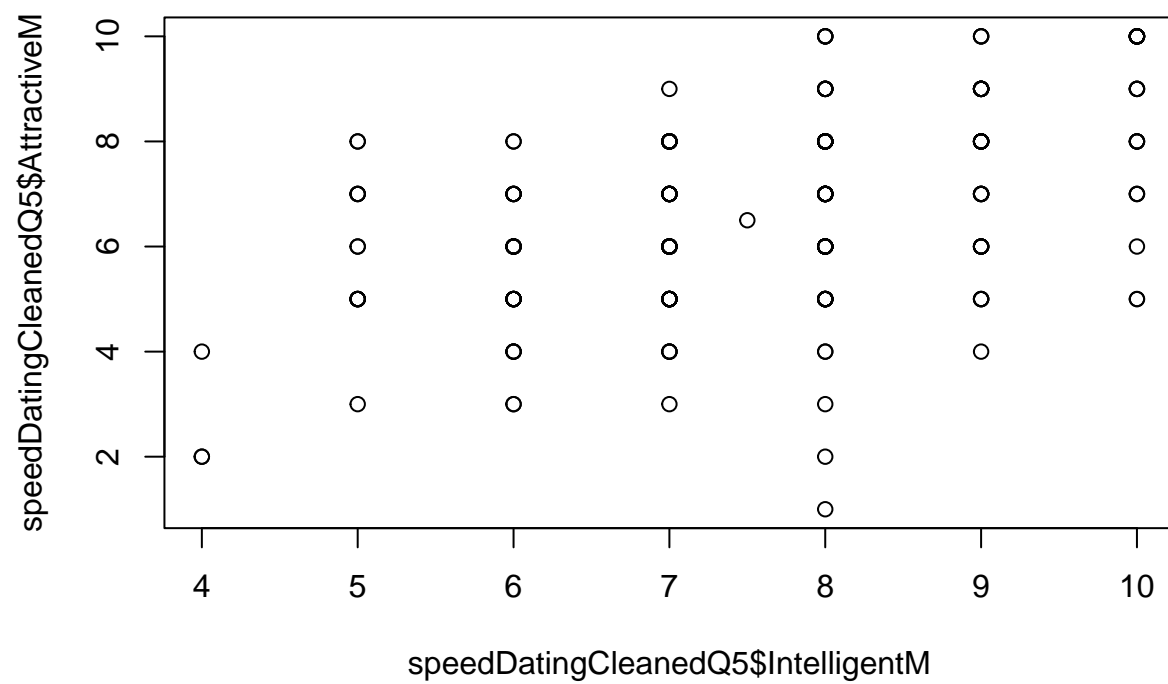
Q5

Does perceived intelligence predict attractiveness?

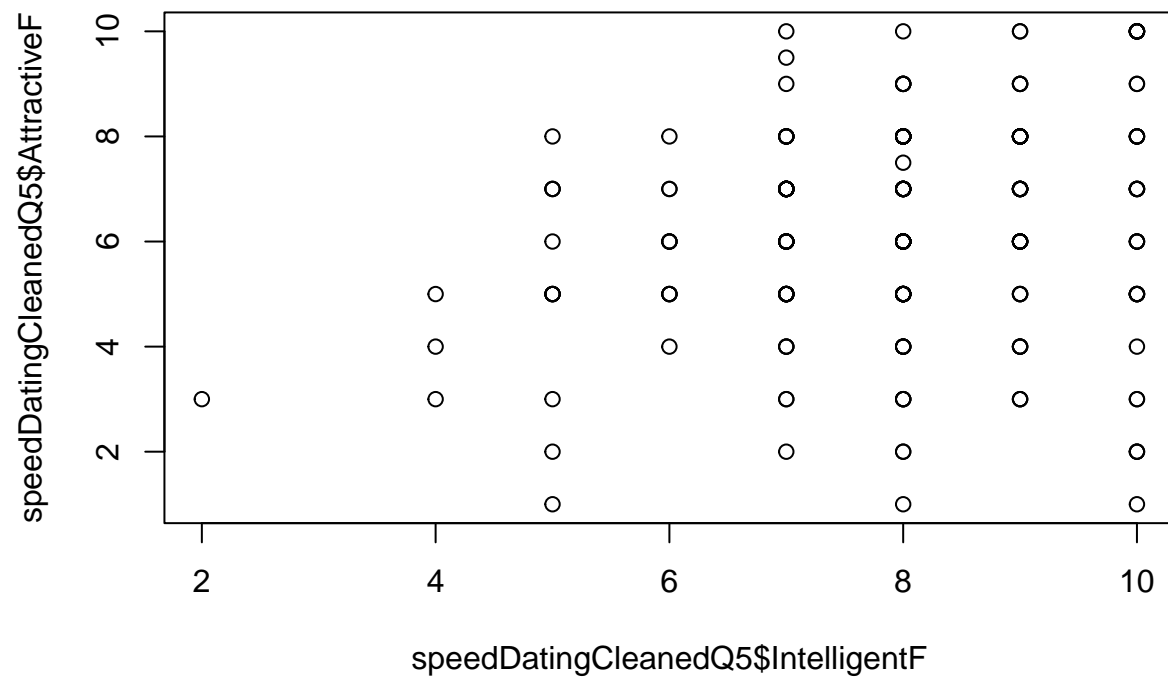
We could standardize the data since everyone might be reporting differently. One person might just give lower ratings even if the person they are rating is higher.

```
speedDatingCleanedQ5 <- SpeedDating %>%
  filter(!is.na(IntelligentM)) %>%
  filter(!is.na(AttractiveM)) %>%
  filter(!is.na(IntelligentF)) %>%
  filter(!is.na(AttractiveF))
```

```
plot(speedDatingCleanedQ5$IntelligentM, speedDatingCleanedQ5$AttractiveM )
```



```
plot(speedDatingCleanedQ5$IntelligentF, speedDatingCleanedQ5$AttractiveF )
```



```
cor(speedDatingCleanedQ5$IntelligentM, speedDatingCleanedQ5$AttractiveM)
```

```
## [1] 0.509658
```

```
cor(speedDatingCleanedQ5$IntelligentF, speedDatingCleanedQ5$AttractiveF)
```

```
## [1] 0.2267845
```