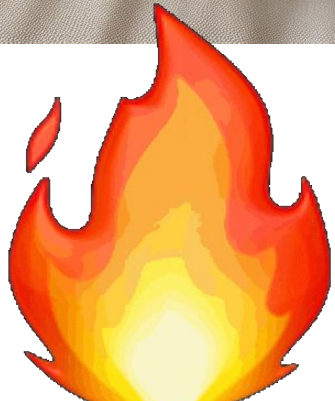




You wanna try some statistics fam?

# Alcodata 1

Data analysis



Ask and Ye Shall Receive...

missScarlett30



Thanks for today

# Results from complete case analysis

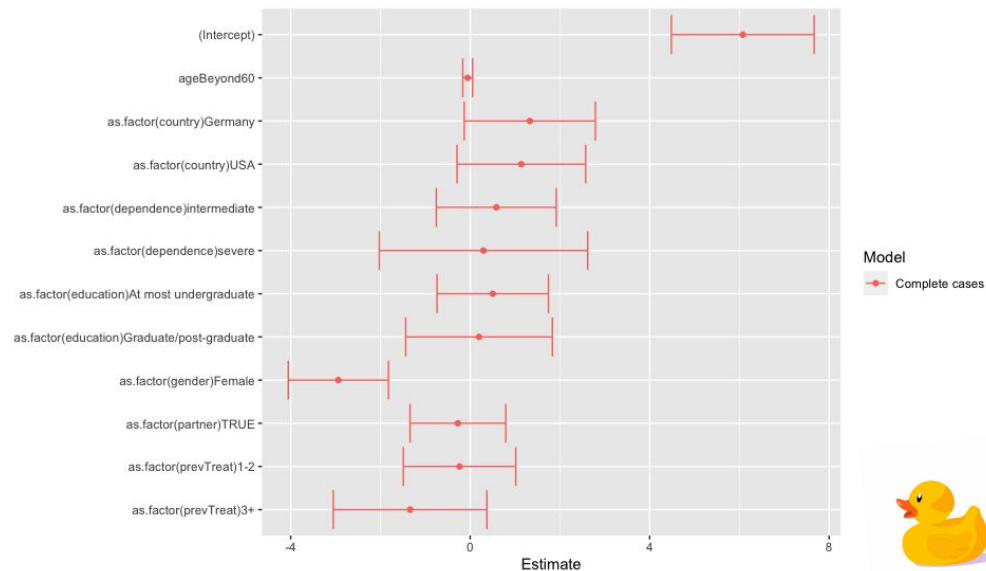
```
Call:
lm(formula = drinks ~ ageBeyond60 + as.factor(country) + as.factor(dependence) +
  as.factor(education) + as.factor(gender) + as.factor(partner) +
  as.factor(prevTreat), data = alcodata1)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-7.4120 -3.0404 -0.9624  2.1281 29.5179
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      6.07584    0.80888   7.511 5.49e-13 ***
ageBeyond60     -0.05569    0.05571  -1.000  0.3182
as.factor(country)USA      1.13988    0.72868   1.564  0.1187
as.factor(country)Germany  1.32880    0.74318   1.788  0.0747 .
as.factor(dependence)intermediate  0.58177    0.67972   0.856  0.3927
as.factor(dependence)severe    0.29686    1.18040   0.251  0.8016
as.factor(education)At most undergraduate  0.50257    0.63102   0.796  0.4263
as.factor(education)Graduate/post-graduate  0.19726    0.83072   0.237  0.8125
as.factor(gender)Female     -2.93797    0.56745  -5.178 3.91e-07 ***
as.factor(partner)TRUE      -0.27407    0.54198  -0.506  0.6134
as.factor(prevTreat)1-2     -0.23750    0.63707  -0.373  0.7095
as.factor(prevTreat)3+     -1.34014    0.87039  -1.540  0.1246
```

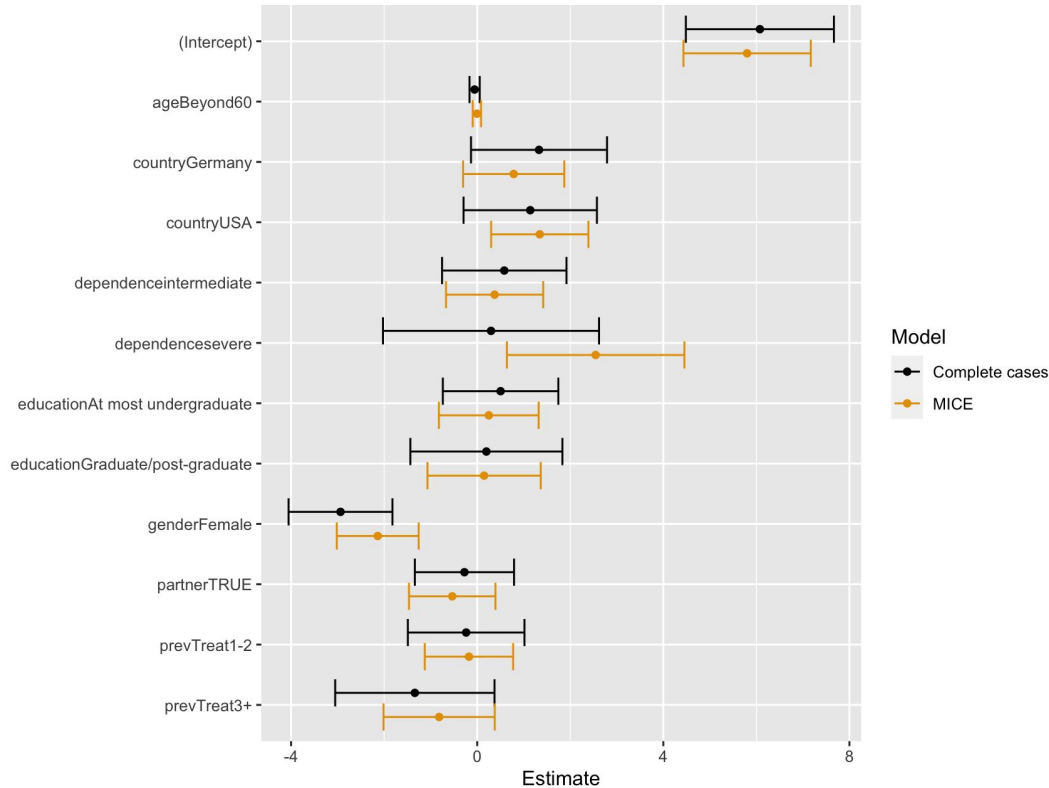
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

```
Residual standard error: 4.717 on 331 degrees of freedom
(337 observations deleted due to missingness)
Multiple R-squared:  0.107,    Adjusted R-squared:  0.07732
F-statistic: 3.605 on 11 and 331 DF,  p-value: 7.944e-05
```

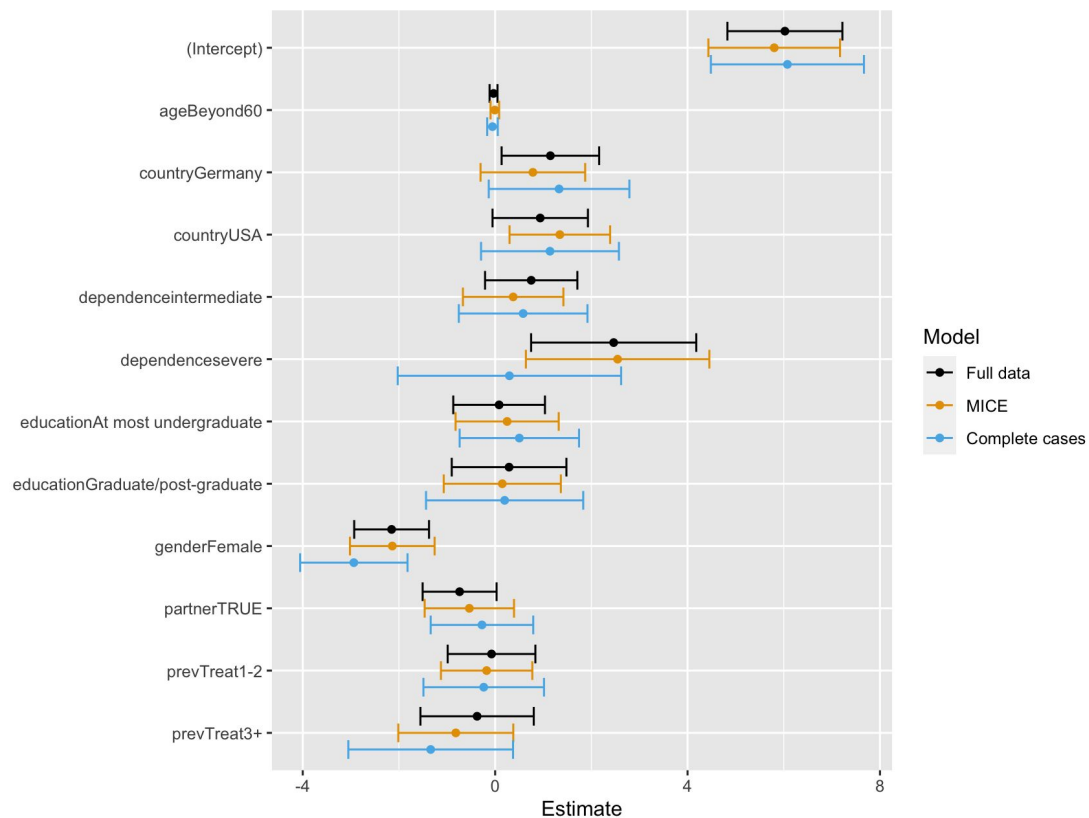




# Results from MICE analysis - compared with CC analysis



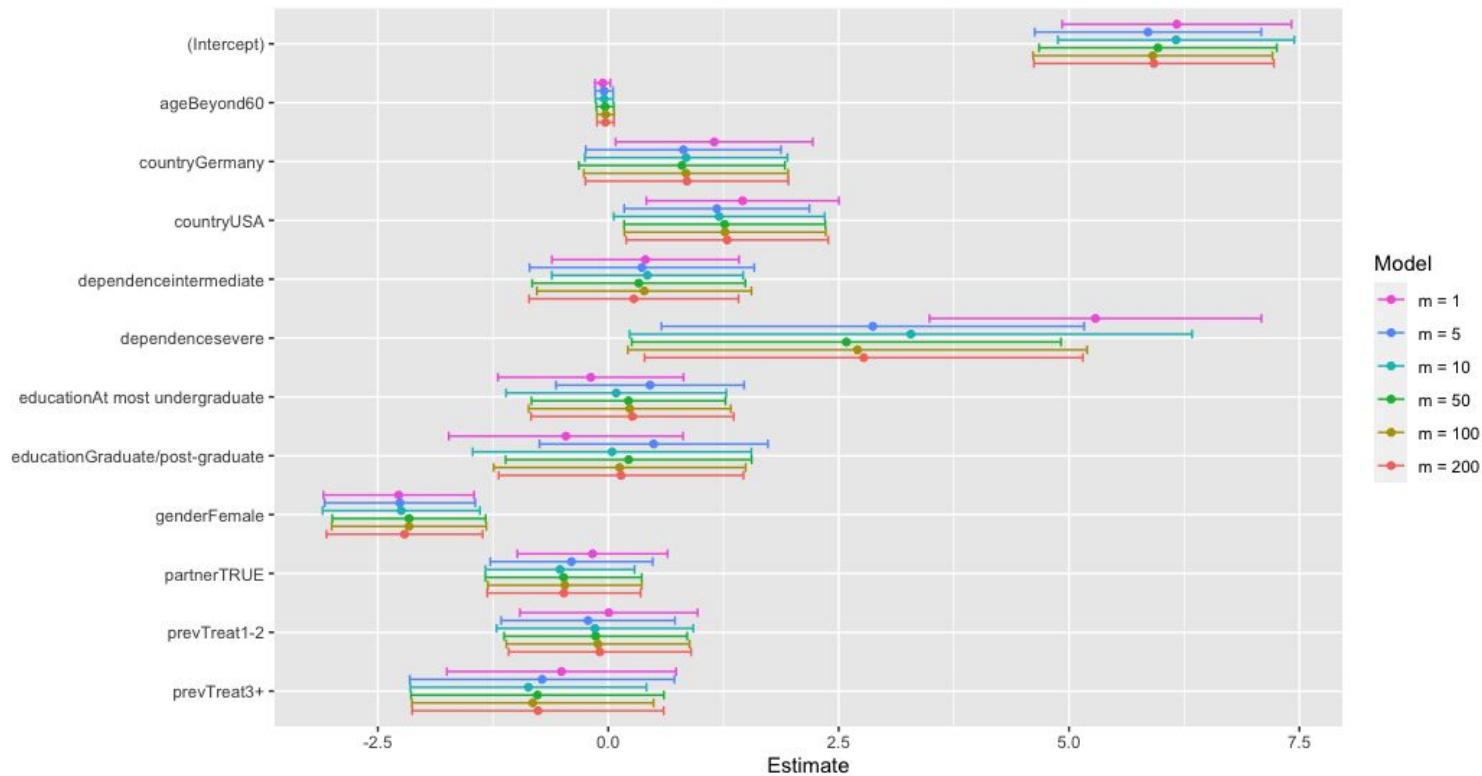
# Results from MICE analysis - compared with CC analysis and “true” model





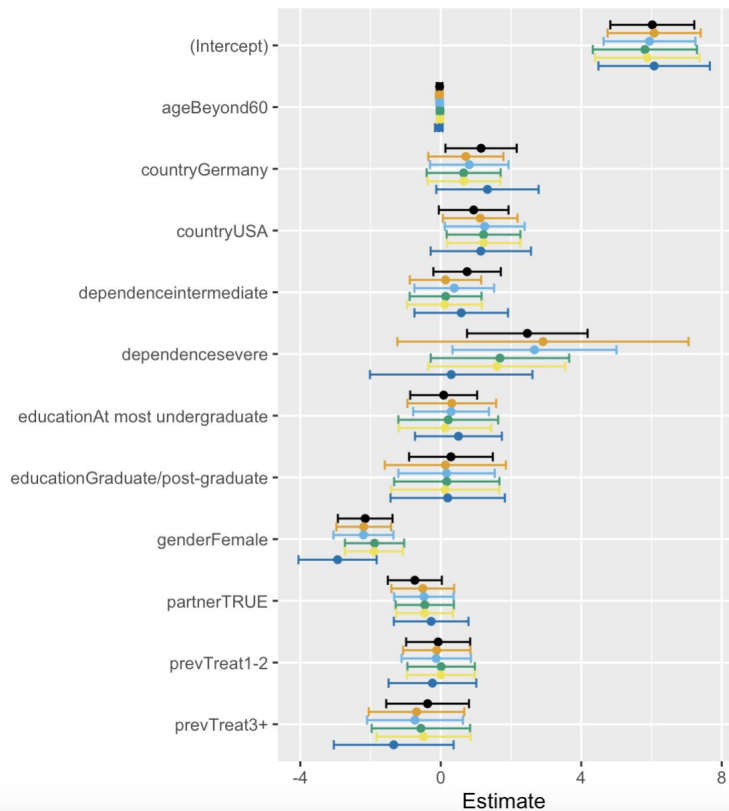
DANCE BREAK

# A closer look on the number of imputed datasets





# A closer look at the choice of variables to use in the imputation model



```
> mat1
```

	country	gender	ageBeyond60	education	partner	dependence	prevTreat
country	0	0	1	1	0	1	0
gender	0	0	0	1	0	1	0
ageBeyond60	0	0	0	1	0	0	0
education	0	0	1	0	0	0	0
partner	0	0	0	1	0	0	0
dependence	0	0	0	1	0	0	0
prevTreat	0	0	0	1	0	1	0
drinks	0	0	0	1	0	0	0
completecase_1	0	0	0	1	0	0	0

```
drinks completecase_1
```

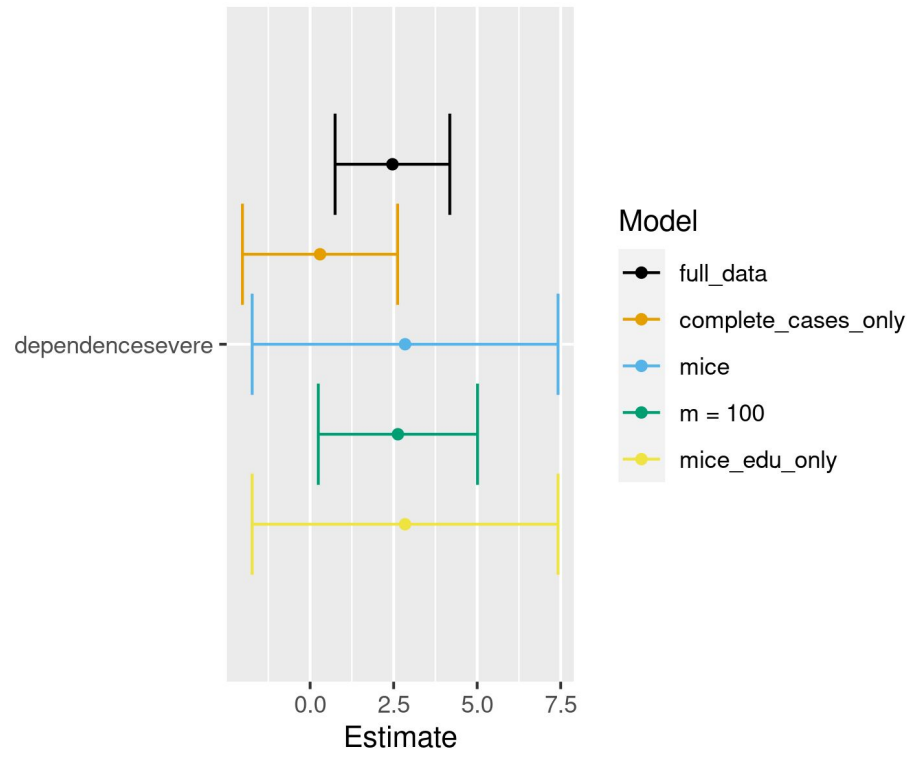
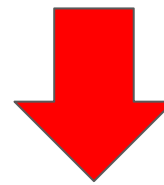
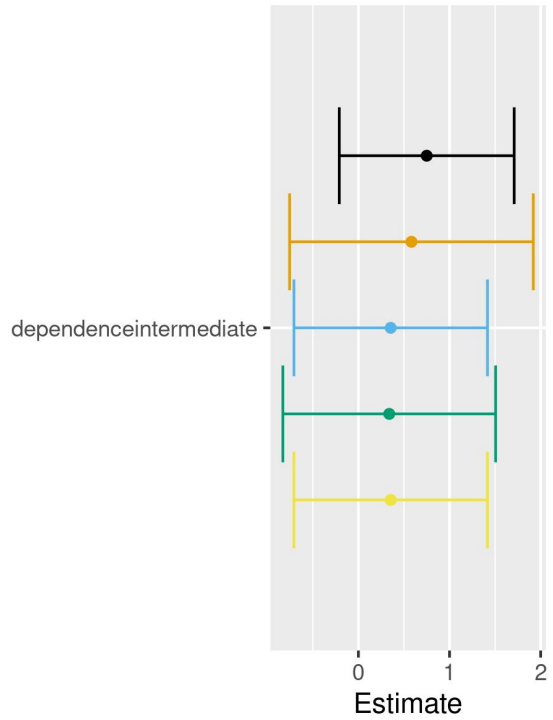
country	0	1
gender	1	1
ageBeyond60	0	1
education	0	1
partner	0	1
dependence	0	1
prevTreat	0	1
drinks	0	1
completecase_1	0	0



# Other things



This one is  
happy! >:(



# Conclusions so far

- Variables that we believe are MCAR:
  - Drinks, age, education
- Variables that we believe are MAR (include depending on which other variables):
  - dependence
- Variables that we believe are MNAR (include guess on mechanism):
  -
- Other points:
  -