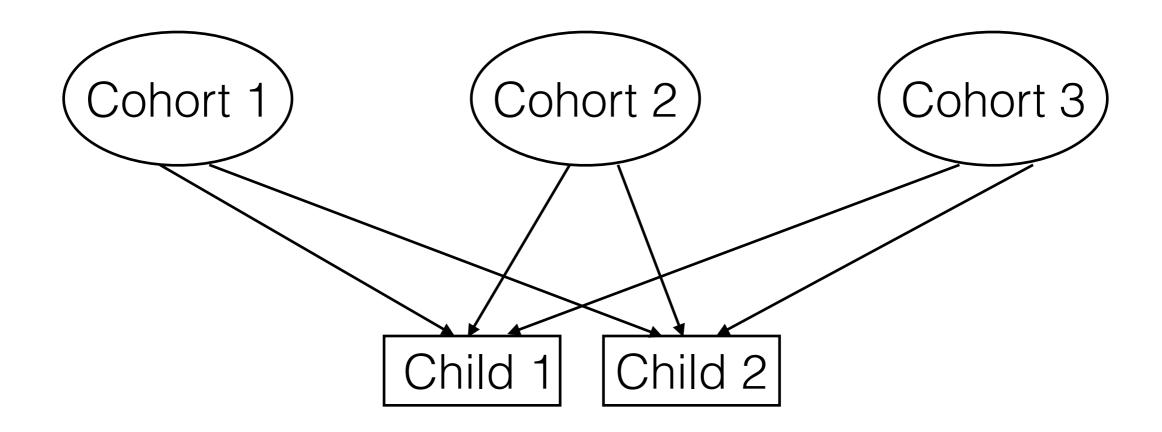
## Crossed



Each child appears in each Cohort. The levels are crossed so random effects structure would be (1+Factor| Cohort) + (1+Factor| Child)

## Visualising our whole dataset using "visdat"

```
install.packages ("visdat")
    library (visdat)
    #read in data file
    RPs_plus_ratings <- read_csv("~/Desktop/Air Work/R analyses/Igor study/RPs_plus_ratings.csv")</pre>
    #make Fit a factor
    RPs_plus_ratings$Fit <- factor (RPs_plus_ratings$Fit)
    #create an index so we can remove item 9
10
    index <- RPs_plus_ratings$Item !="9"
12
    #visualise the data
    vis_dat(RPs_plus_ratings[index,])
15
    #visualise missing data
    vis_miss(RPs_plus_ratings[index,])
                                                                               100
         100
                                                                            Observations
                                                         Type
      Observations
                                                            factor
                                                                               200
                                                            integer
                                                            numeric
                                                                               300
                                                                               400
        400
                                                                                                                           Present
                                                                                                                           (99.3\%)
```