Ancova first steps; check on Assumptions (steps 1-5)

step 1: ⊥ btw IV and covariate / Potential Confounder

do aov(cov ~ IV, data = ...) then see summary result

we know that Ho : $\mu_1 = \dots = \mu_g$ btw group(g) means are the same

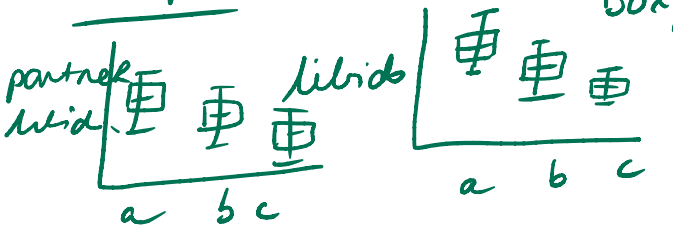
$H_A$ : $\mu_1 \neq \dots \neq \mu_g$ btw group means are not the same

↓ Pr(>F) > α, we accept Ho

↓ Pr(>F) < α, we reject Ho

step 2 : Visual test

Boxplot




empirical libido quantile | Q-Q plot

theoretical libido quantiles


step 3 : Homogeneity of Variance of Populations = Levene's Test

leveneTest(data$DV, data$IV, centre = median)

result : Pr(>F) < α, Ho Rejected

Pr(<F) > α, Ho Accepted

see next page

step 3 continued) $H_0 \Rightarrow var_1 = \ldots = var_g$

var across all doses / groups of IV are the same

$H_A \Rightarrow var_1 \neq \ldots \neq var_g$

var across all doses / groups of IV are not the same.

step 4) Each IV is a linear R'ship to libido (DV)

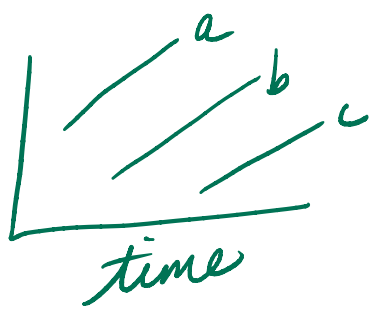
check for contrasts between groups

(Run ancova aov( libido ~ dose, data=..) → summary. lm. (model)

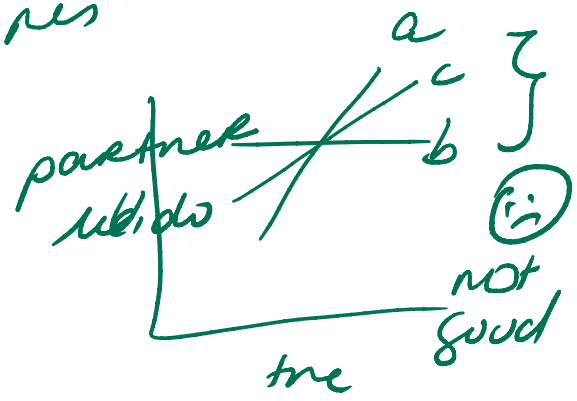
DV IV


step 5) Homogeneity of regression slopes

partner libido




} good bc shows homogenous profile of group in doses a, b, c.



post hoc?