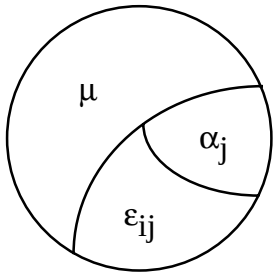
Psychology 610 Handout #4
Prof. Moore

General Linear Model for One Way ANOVA

Score model:

Let Y_{ij} be the i^{th} subject in cell A_j

Y_{ij}



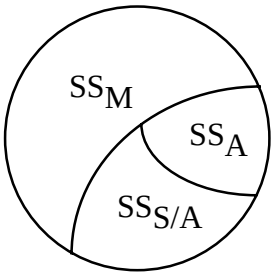
$$Y_{ij} = \bar{Y}_T + (\bar{Y}_j - \bar{Y}_T) + (Y_{ij} - \bar{Y}_j)$$

$$Y_{ij} = \mu + \alpha_j + \varepsilon_{ij}$$

$$Y_{ij} = \text{mean} + \underset{\text{effect}}{A} + \text{error}$$

BREAKDOWN OF SUM OF SQUARED SCORES

SSS



$$SSS = \Sigma Y_{ij}^2 = SS_{mean} + SS_A + SS_{S/A}$$

BREAKDOWN OF DEGREES OF FREEDOM

$$an = 1 + (a - 1) + a(n - 1)$$

total observations — df mean — df for A — df for S/A