

# Deviation Coding Direct Classification

response  $\sim \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2$

pred subj

$X_1 = \begin{Bmatrix} -1 \\ 1 \end{Bmatrix}$

syntactic

$X_2 = \begin{Bmatrix} -1 \\ 1 \end{Bmatrix}$

critical filler  
trial-type

l-subj is mean:  $\beta_0 + \beta_1 - \beta_2 - \beta_3 (-1)(-1)$  syntactic critical;  
 l-pred is mean:  $\beta_0 - \beta_1 - \beta_2 + \beta_3 (-1)(1)$  subj-pred  $> 0$ ;

l-subj:  $\beta_0 + \beta_1 + \beta_2 + \beta_3$

$(\beta_1 + \beta_2 - \beta_3) =$   
 $(\beta_0 - \beta_1 - \beta_2 + \beta_3) > 0$

l-pred:  $\beta_0 - \beta_1 + \beta_2 - \beta_3$

$(\beta_0 + \beta_1 - \beta_2 - \beta_3 - \beta_0 + \beta_1 + \beta_2 + \beta_3)$   
 $(\Rightarrow) 2\beta_1 - 2\beta_3 > 0$

$(\Rightarrow) 2\beta_1 - 2\beta_3 > 0$