

$$\mu_h \sim \text{Uniform}(0.5, 1)$$

$$\mu_{fa} \sim \text{Uniform}(0, 0.5)$$

 $\delta \sim \text{Uniform}(0, 0.5)$ 

$$\mu_h^A \leftarrow \mu_h + \frac{\delta}{2}$$

$$\mu_h^B \leftarrow \mu_h - \frac{\delta}{2}$$

$$\mu_{fa}^A \leftarrow \mu_{fa} - \frac{\delta}{2}$$

$$\mu_{fa}^B \leftarrow \mu_{fa} + \frac{\delta}{2}$$

$$\sigma_i^A, \sigma_i^B \sim \text{Uniform}(0, 1)$$

$$\theta_i^A \sim \text{Gaussian}(\mu_i^A, \sigma_i^A)$$
  
 $\theta_i^B \sim \text{Gaussian}(\mu_i^B, \sigma_i^B)$ 

$$y_i^A \sim \text{Binomial}(\theta_i^A, n^A)$$
  
 $y_i^B \sim \text{Binomial}(\theta_i^B, n^B)$