

$$\alpha \sim \text{Uniform}(0.6, 1)$$

$$\beta \sim \text{Uniform}(0, 0.4)$$

$$\gamma \sim \text{Uniform}(0.401, 0.599)$$

$$z_i \sim \text{Dirchlet}(1, 1, 1)$$

$$\theta_{ih} \leftarrow \begin{cases} \alpha_j & \text{if } z_j = 1\\ \beta_j & \text{if } z_j = 2\\ \gamma_j & \text{if } z_j = 3 \end{cases}$$

$$y_{ij} \sim \text{Bernoulli}(\theta_j)$$