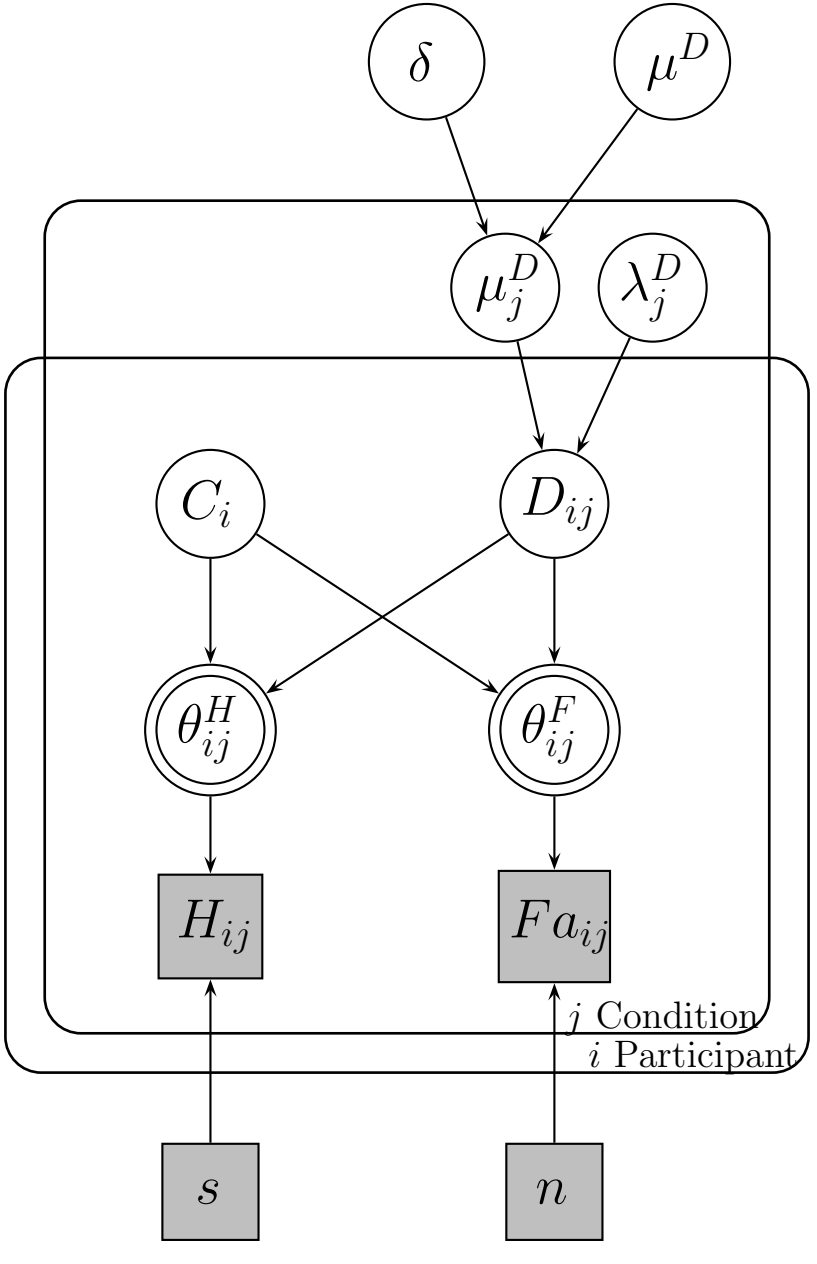

$$\delta \sim \text{Gaussian}\big(0, 1\big)$$

$$\mu^D \sim \text{Gaussian}\big(0, 1\big)$$

$$\lambda_j^D \sim \text{Gamma}\big(.001, .001\big)$$

$$\mu_A^D \leftarrow \mu^D + \tfrac{\delta}{2} \qquad \mu_j^D$$

$$\mu_B^D \leftarrow \mu^D - \tfrac{\delta}{2}$$

$$D_{ij} \sim \text{Gaussian}\big(\mu_j^D, \lambda_j^D\big)$$

$$C_i \sim \text{Gaussian}\big(0, 1\big)$$

$$\theta_{ij}^H \leftarrow \phi(\tfrac{1}{2} D_{ij} - C_i)$$

$$\theta_{ij}^F \leftarrow \phi(-\tfrac{1}{2} D_{ij} - C_i)$$

$$H_{ij} \sim \text{Binomial}\big(\theta_{ij}^H, s\big)$$

$$Fa_{ij} \sim \text{Binomial}\big(\theta_{ij}^F, n\big)$$