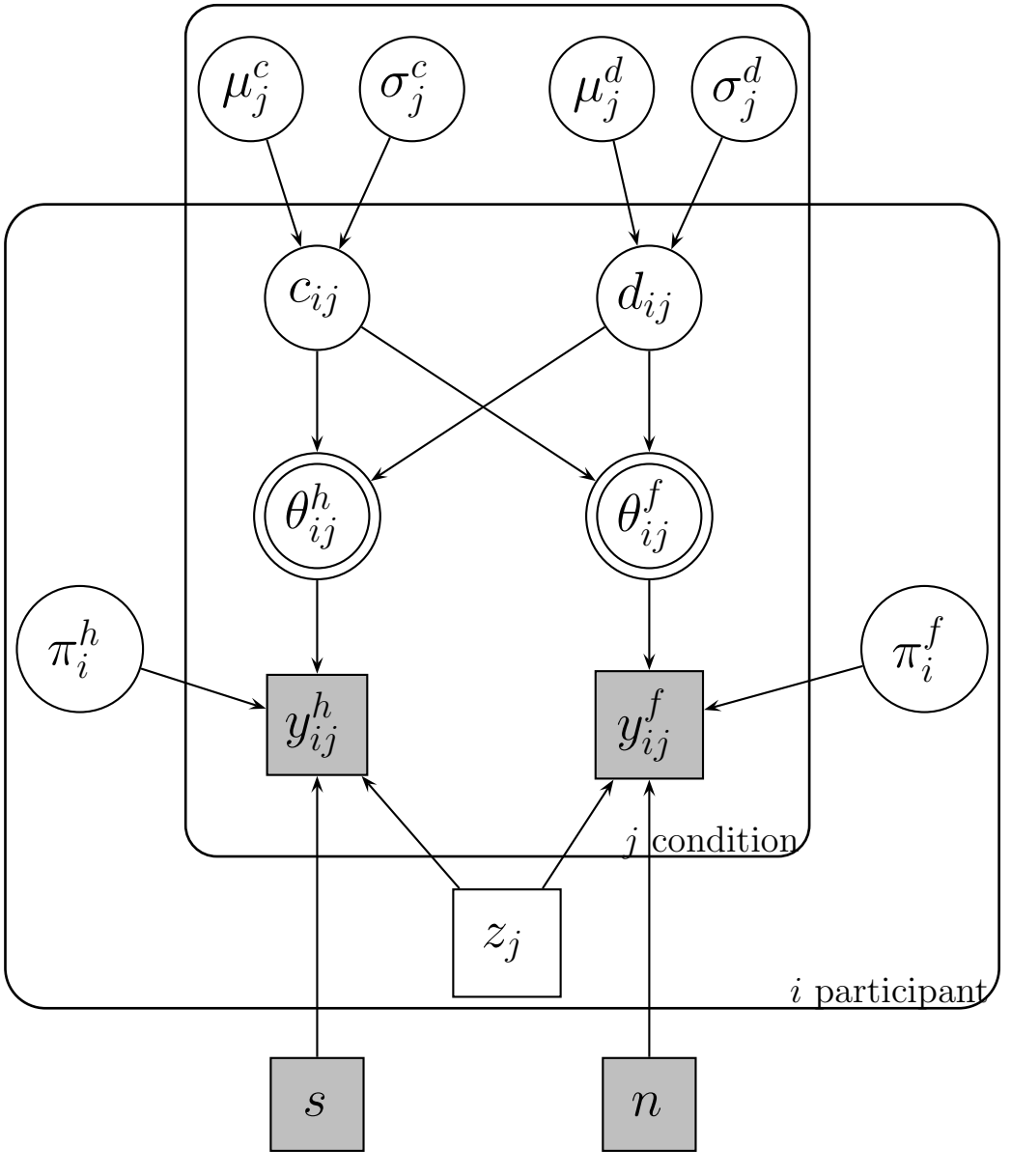

$$y_{ij}^h \leftarrow \begin{cases} \pi_j^h & \text{if } z_j = 0 \\ \theta_{ij}^h & \text{if } z_j = 1 \end{cases}$$

$$y_{ij}^f \leftarrow \begin{cases} \pi_j^f & \text{if } z_j = 0 \\ \theta_{ij}^f & \text{if } z_j = 1 \end{cases}$$

$$\pi_i^h, \pi_i^f \sim \text{Beta}\big(1, 1\big)$$

$$\theta_{ij}^h \leftarrow \phi(\tfrac{1}{2} d_{ij} - c_{ij})$$

$$\theta_{ij}^f \leftarrow \phi(-\tfrac{1}{2} d_{ij} - c_{ij})$$

$$d_{ij} \sim \text{Gaussian}\big(\mu_j^d, \sigma_j^d\big)$$

$$c_{ij} \sim \text{Gaussian}\big(\mu_j^c, \sigma_j^c\big)$$

$$\mu_j^c, \mu_j^d \sim \text{Gaussian}\big(0, 2\big)$$

$$\sigma_j^c, \sigma_j^d \sim \text{Gamma}\big(1, 1\big)$$