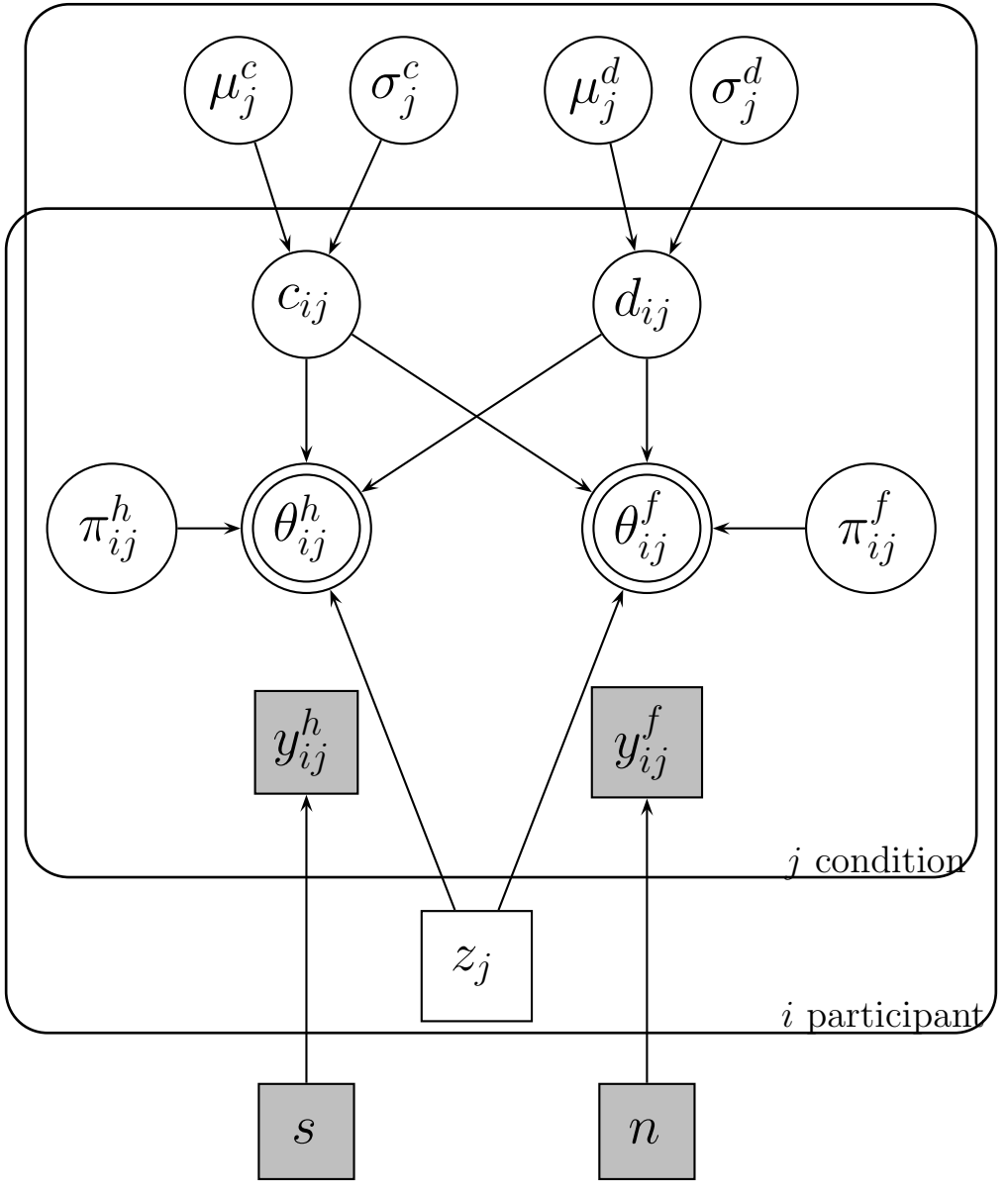

$$\mu_j^c \sim \text{Gaussian}(0, 0.7)$$
$$\mu_j^d \sim \text{Gaussian}(0, 1)_{T(0,\infty)}$$
$$\sigma_j^c, \sigma_j^d \sim \text{Uniform}(0, 4)$$

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

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

$$\theta_{ij}^h \leftarrow \begin{cases} \pi_{ij}^h & \text{if } z_j = 0 \\ \phi(\frac{1}{2} d_{ij} - c_{ij}) & \text{if } z_j = 1 \end{cases}$$

$$\theta_{ij}^f \leftarrow \begin{cases} \pi_{ij}^f & \text{if } z_j = 0 \\ \phi(-\frac{1}{2} d_{ij} - c_{ij}) & \text{if } z_j = 1 \end{cases}$$

$$z_j \sim \text{Bernoulli}(0.5)$$

$$y_{ij}^h \sim \text{Binomial}(\theta_{ij}^h, s)$$
$$h_{ij}^f \sim \text{Binomial}(\theta_{ij}^f, s)$$