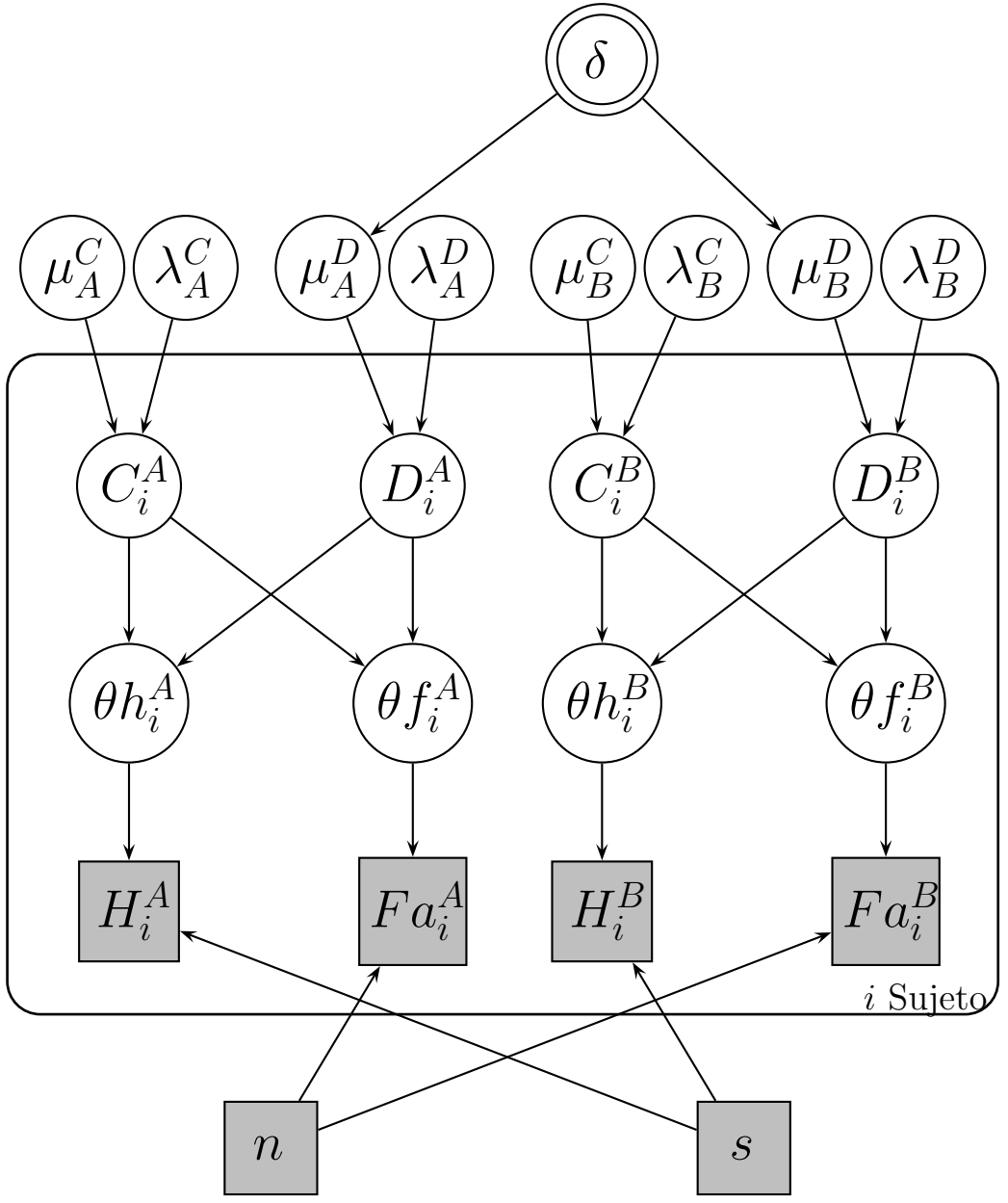

$$H_i^A \sim \text{Binomial}\big(\theta h_i^A, s\big)$$
$$Fa_i^A \sim \text{Binomial}\big(\theta f_i^A, s\big)$$
$$H_i^B \sim \text{Binomial}\big(\theta h_i^B, s\big)$$
$$Fa_i^A \sim \text{Binomial}\big(\theta f_i^B, s\big)$$

$$\theta h_i^A \leftarrow \phi(\tfrac{1}{2} D_i^A - C_i^A)$$
$$\theta f_i^A \leftarrow \phi(-\tfrac{1}{2} D_i^A - C_i^A)$$
$$\theta h_i^B \leftarrow \phi(\tfrac{1}{2} D_i^B - C_i^B)$$
$$\theta f_i^B \leftarrow \phi(-\tfrac{1}{2} D_i^B - C_i^B)$$

$$D_i^A \sim \text{Gaussian}\big(0, 0.5\big)$$
$$C_i^A \sim \text{Gaussian}\big(0, 2\big)$$
$$D_i^B \sim \text{Gaussian}\big(0, 0.5\big)$$
$$C_i^B \sim \text{Gaussian}\big(0, 2\big)$$

$$\mu_{Ai}^D, \mu_{Bi}^D, \mu_{Ai}^C, \mu_{Bi}^C \sim \text{Gaussian}\big(0, 0.001\big)$$
$$\lambda_{Ai}^D, \lambda_{Bi}^D, \lambda_{Ai}^C, \lambda_{Bi}^C \sim \text{Gamma}\big(.001, .001\big)$$

$$\delta_i \leftarrow D_i^A - D_i^B$$