

Priors

 $\sigma_n^A \sim \text{Gamma}(0.001, 0.001)$ $\mu_n^B \sim \text{Gaussian}(0, 1000)$

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 $\sigma_n^B \sim \text{Gamma}(0.001, 0.001)$

 $\lambda_n^{\sigma} \sim \text{Exponential}(0.001)$

Subject specific parameters

 $k_n^{\sigma} \sim \text{Exponential}(0.001)$

 $A_{ns} \sim \text{Gaussian}(\mu_n^A, \sigma_n^A)$

 $B_{ns} \sim \text{Gaussian}(\mu_n^B, \sigma_n^B)$ $\sigma_{ns} \sim \operatorname{Gamma}(k_n^{\sigma}, \lambda_n^{\sigma})$

Observed choices

 $p_{nsg} \leftarrow \left[1 + \exp\left(\frac{\Delta R_{nsg} + A_{ns} \Delta I_{nsg} + B_{ns}}{\sigma_{ns}}\right)\right]^{-1}$

 $c_{nsg} \sim \text{Bernoulli}(p_{nsg})$