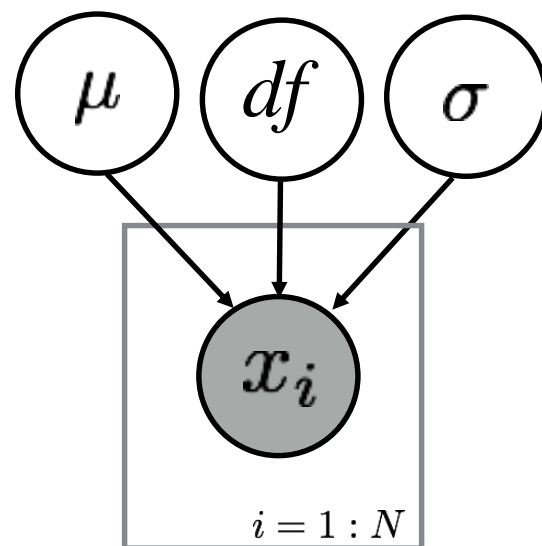


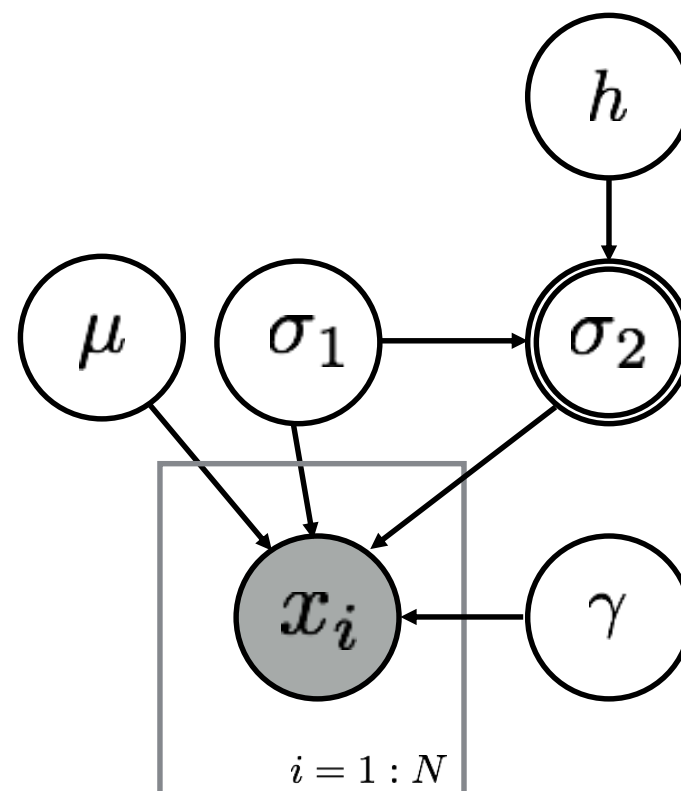
(a) Normal

$$\begin{aligned}\mu &\sim N(0, 100) \\ 1/\sigma^2 &\sim \\ &Gamma(.0001, .0001) \\ x_i &\sim N(\mu, \sigma)\end{aligned}$$



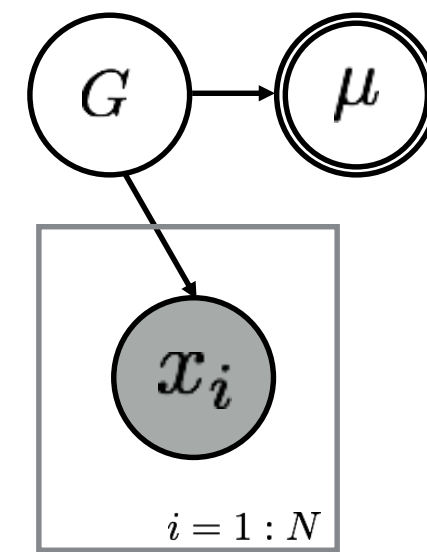
(b) t-distribution

$$\begin{aligned}\mu &\sim N(0, 100) \\ 1/\sigma^2 &\sim \\ &Gamma(.0001, .0001) \\ df &\sim exp(1) + .001 \\ x_i &\sim t(\mu, \sigma, df)\end{aligned}$$



(c) Contaminated  
normal

$$\begin{aligned}\mu &\sim N(0, 100) \\ 1/\sigma_1^2 &\sim Gamma(.0001, \\ & .0001) \\ h &\sim exp(.1) + .01 \\ \gamma &\sim dbeta(1, 9) \\ z_i &\sim bernoulli(\gamma) \\ 1/\sigma_2^2 &\sim z_i * h * 1/\sigma_1^2 \\ x &\sim t(\mu, \sigma, df)\end{aligned}$$



(d) Bayesian  
bootstrap

$$\begin{aligned}\pi &\sim Dirichlet(0_1, \dots, 0_k) \\ k_i &\sim Categorical(\pi) \\ x_i &= d_{ki} \\ \mu &\sim mean(x)\end{aligned}$$