**Logit and probit MCMC**

Categorical data model, two possible outcomes:

For the logit:

So log likelihood is,

With a typical prior for , say Normal, the conditional posterior is not a recognizable distribution, so we use Metropolis-Hastings to sample from this.

For the probit: , where is the cumulative Normal distribution function with mean and variance 1 (the integral of the density N(,1)).