

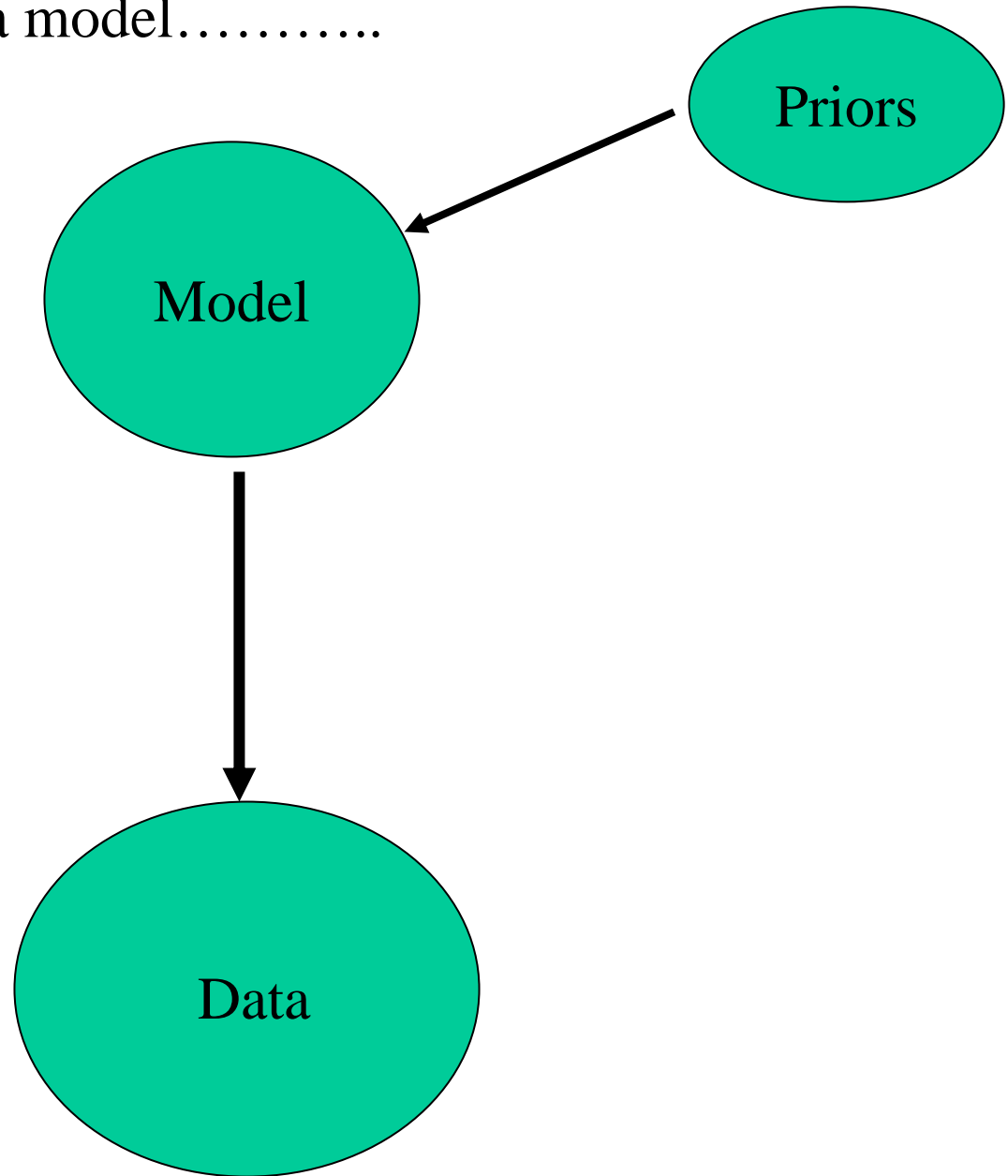
More on model selection

- Reversible Jump
 - See King and Brooks article
 - See Lunn article
- Implementation in WinBUGS
 - Limited set of models
 - See installer and examples at

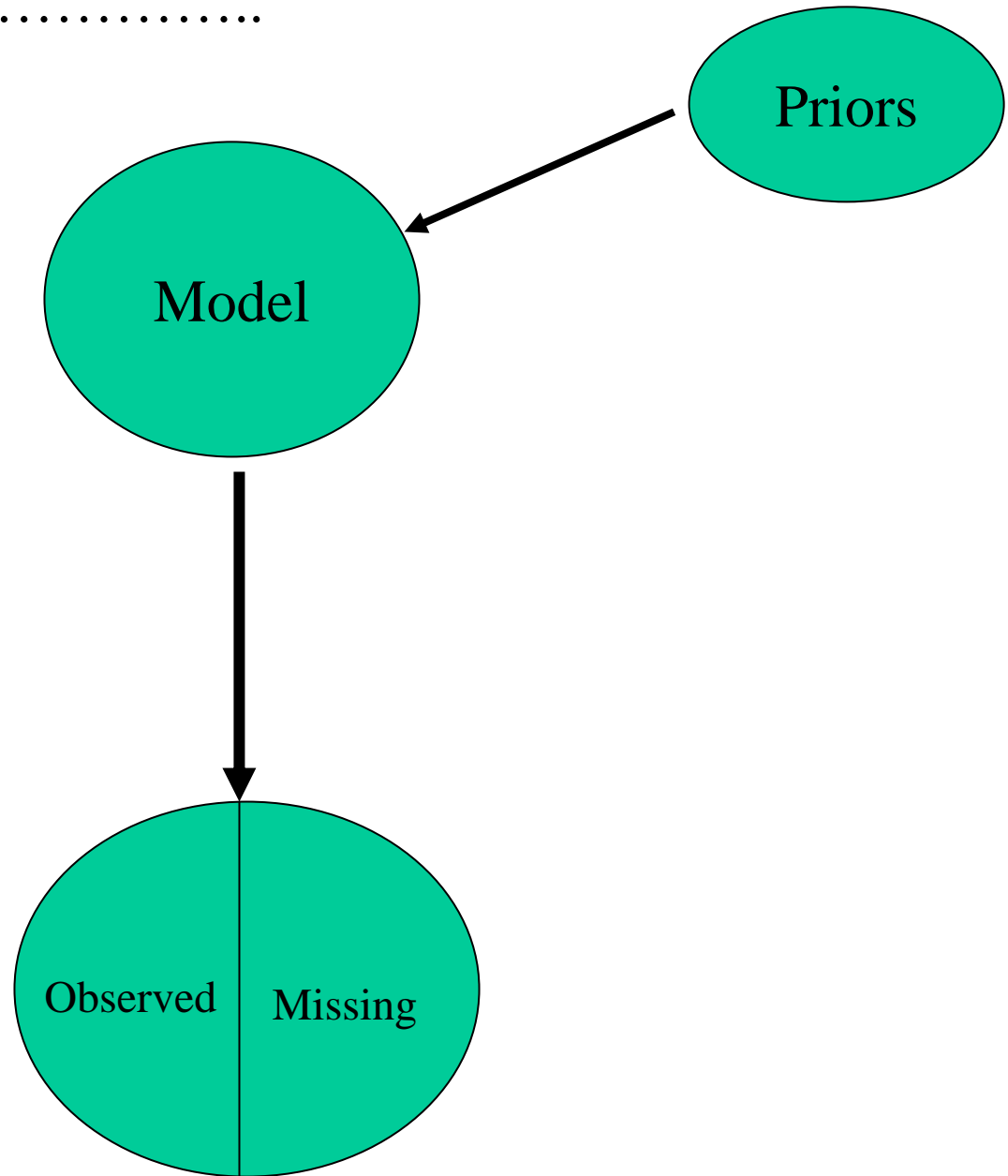
Missing data

- Missing data is a *prediction* problem
- Observed data are considered “knowns”
- Unobserved including missing data are “unknowns”

The generic data model.....



Modeling missing data.....



Assumption: same process gives rise to both types of data!

Examples in WinBUGS (1)

- Simple random sample
 - Missing values are predicted from posterior mean
- Implementation in WinBUGS
 - [missing.odc](#)

Example (2)

- Double sampling and regression prediction
 - Y and X are observed on part of sample, only X on rest
 - Predict Y
- Implementation in [regression1.odc](#)

Example (3)

- Double sampling and regression prediction
 - Y and X are observed on part of sample, only Y on rest
 - Predict X (inverse prediction)
- Implementation in [regression2.odc](#)

Example (4)

- Double sampling for occupancy and abundance
 - Detection sampling on both samples
 - Abundance estimation on first only
 - Predict abundance on second via relationship between detection and abundance
- Implementation in [detection_abundance.odc](#)