For Next Monday:

Implement both models in BUGS, and run each chain for a burn in of 1000 iterations using the same starting values. Monitor for the next 10000 iterations. (code and data can be copied from the Seeds example in BUGS Examples I under the Help menu for WinBUGS 1.3)

1) How long does it take to run both chains?
2) Have the correlation properties of the chain improved? (include any supporting graphs or summaries)
3) Eliminate the random effects parameter in the model and re-run the chains. Construct plots of the posterior distributions for the four group means mu (the 2x2 treatment combinations) for the models with and without the random effect. Does the random effect have any impact on the distribution of the group means, or interpretations and conclusions about treatment effects? Explain.
4) For discussion: How would you test whether the random effects term should be included?

For Next Class:

Explore the Florida election results – is the Palm Beach Buchanan vote surprising? Think about a model for the data that can address some of the current issues...

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