Homework: Reading from Gelman and Hill

Over the next *three nights*, you'll be working through various sections of Data Analysis Using Multilevel/Hierarchical Models by Gelman and Hill. Chapters 3 through 5 of this book are located in the readings/gelman folder of the GitHub curriculum repository. The first section or two may seem like review but the readings quickly move into new territory. Pay especially close attention to Gelman's exposition regarding how to properly interpret the coefficients of a linear or logistic regression model.

The reading assignments are given below (one per night):

- **Assignment 1:** Sections 3.1–3.3 and 3.6–3.7.
- Assignment 2: Sections 4.1–4.3.
- **Assignment 3:** Sections 5.1–5.2 and 4.4–4.6.

As you read, follow through the text and work through the examples in an R script of your own. Include your interpretation of the results as comments. Gelman uses display() from his own custom package, but you can just use summary() if you want.

Look on Gelman's website for the datasets used in his book. Download both

Zip file with R/Bugs code for most of the examples from the book.

and

Zip file with data for most of the examples and exercises from the book.

referring to the former to see which datasets to load from the latter.

If the above links don't work, the files are also available in the datasets/gelman-hill folder of our repository.