DB

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Complexity in fitting Linear Mixed Models

Linear mixed-effects models are increasingly used for the analysis of data from experiments in fields like psychology where several subjects are each exposed to each of several different items. In addition to a response, which here will be assumed to be on a continuous scale, such as a *response time*, a number of experimental conditions are systematically varied during the experiment. In the language of statistical experimental design the latter variables are called *experimental factors* whereas factors like `Subject` and `Item` are *blocking factors*. That is, these are known sources of variation that usually are not of interest by themselves but still should be accounted for when looking for systematic variation in the response.

An example data set

The data from experiment 2 in *Kronmueller and Barr (2007)* are available in `.rds` (R Data Set) format in the file `kb07_exp2_rt.rds` in the github repository provided by Dale Barr. Files in this format can be loaded using the *RData* package for **Julia**.