Summer School Questions

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Daniel Backhaus

1. What is `lmer(..., control = lmerControl(calc.derivs = FALSE, optimizer = "bobyqa", optCtrl = list(maxfun = 1e6))` good for ? Are there pitfalls in usage? Do I need to worry about this with `MixedModels`?
2. When does double bar syntax work and when doesn't work it? Is this equivalent to `MixedModels`?
3. Is a difference with this small effectsize reproducible or random? How to power calculate that? In `MixedModels`?

Marleen Haupt

1. Transformation in case of non-Gaussian distributed model residuals?
2. Contrast specifications for higher-order interactions?

Kyla McConnell

1. How to specify matched items in the LMM?
2. What can be captured with (additional) random factors or random effects for such designs?

Noam Tal-Perry

1. How are the statistics in emmeans calculated? Are they reliable? Should I instead rely solely on the contrasts given "for free" by the model? I just find that I cannot get a satisfactory group of contrasts, which means I need to remodel the data several times to get all the contrasts I need.

2. The LR test for [an effect] results in a non-significant p-value (and Bayesian approximation resulted in a large BF), yet the contrast for [this effect] in the full model summary results in an enormously significant (/large) effect. How are the two to be settled?
3. I'd like to understand better whether I can use LR test (anova) to contrast between models with different random structures. If not, how can I support the choice of one model and not the other, except for relying on model convergence?