Exercises to chapter 7: Linear mixed effect models

1) Take one or more examples of your own study and discuss which of the variables may be treated as „random" and which ones as „fixed".

2) Refit the random intercept and slope model for studying the effect of corticosterone on growth rate (data(wingbowl)), but centre the variable Age before the fit. Look at the correlation between the random effects for the intercept and the slope. Can you explain your observation? What happened to the intercept?

3) Fit the random intercept and random slope model for studying the effect of corticosterone on growth rate (data(wingbowl)) with nest (Brood) as a further random factor included. Draw nest-specific regression lines.