Day 4 Optional Homework

1. Using the conflict variable, estimate the linear growth curve model in which there are separate slope and intercept random effects for men and women.
    a. Test and interpret the gender difference, the time effect, and the time by gender interaction. *Hint:* if the model will not converge, try increasing the maximum iterations using this code:

```
ctrl <- lmeControl(msMaxIter=10000,
            MaxIter=100000,
            msMaxEval=10000,
            returnObject=TRUE,
            niterEM=10000,
            nlmStepMax=1000)
```

    And adding this text to the lme call:

```
control = ctrl
```

    b. Add the effects of actor and partner attachment avoidance to the model. Are there any effects for these variables and if so, interpret them?

2. Estimate the stability and influence model in which gender moderates actor and partner lagged effects on conflict. You will need to first create actor and partner lagged values for conflict. Treating the random effects for stability and influence as indistinguishable, test for statistical significance, and interpret the following fixed and random effects for each of the following terms:
    a. Gender
    b. Stability
    c. Influence
    d. Gender by Stability
    e. Gender by Influence