

- So what can we do? We need to simplify the random effects structures. We can do this by dropping terms one by one until we find a model that can be fitted to our data. For example, we could drop the random slope from our items random effect first.
- For this particular example, the most complex model that works involves only random intercepts.

```
> model.interceptonly <- glmer(DV ~ Condition + (1 | Subject) + (1 | Item) , data = RO,  
family = binomial)  
> model.null <- glmer(DV ~ (1 | Subject) + (1 | Item), data = RO, family = binomial)  
> anova(model.interceptonly, model.null)
```

```
> anova (model.interceptonly, model.null)
Data: RO
Models:
model.null: DV ~ (1 | Subject) + (1 | Item)
model.interceptonly: DV ~ Condition + (1 | Subject) + (1 | Item)
```

	Df	AIC	BIC	logLik	deviance	Chisq	Chi	Df	Pr(>Chisq)
model.null	3	601.97	614.91	-297.98	595.97				
model.interceptonly	5	605.70	627.28	-297.85	595.70	0.2617		2	0.8773

- Our model with a fixed effect of Condition, and with random intercepts is no better than our model with just the random intercepts. In fact, it's worse - look at the AIC values. So we have no effect of Condition in our re-reading data.