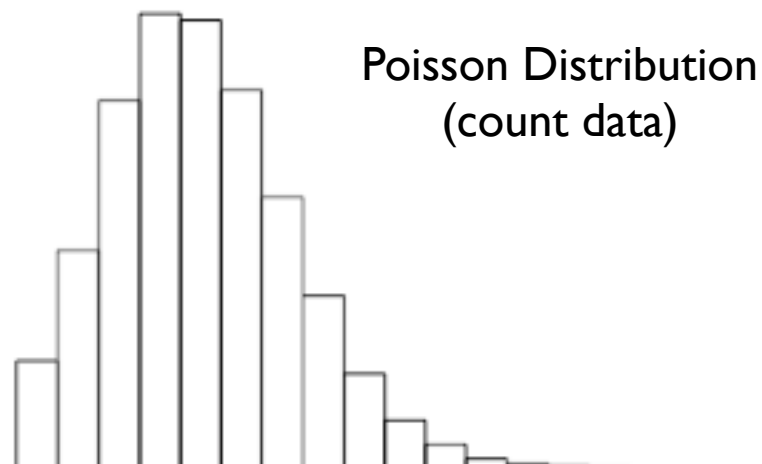
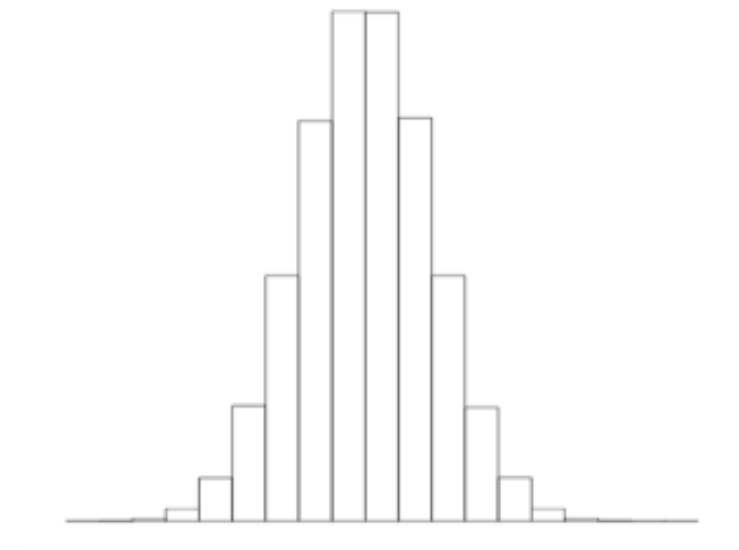


# Other distributions under the GLMM via the function `glmer` are available...

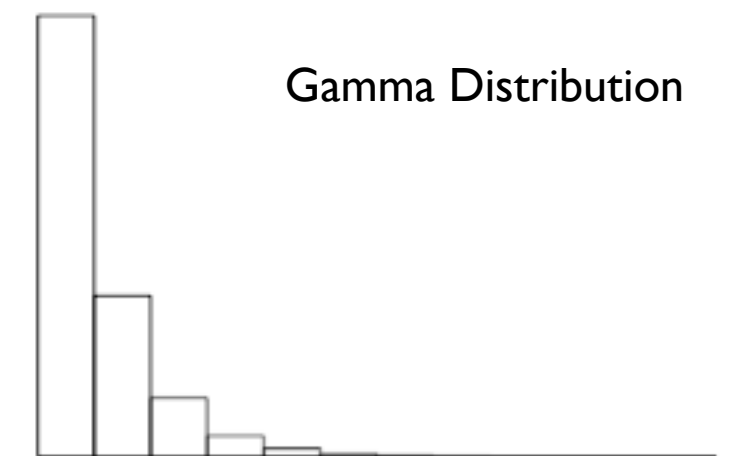
## Usage

```
family(object, ...)  
  
binomial(link = "logit")  
gaussian(link = "identity")  
Gamma(link = "inverse")  
inverse.gaussian(link = "1/mu^2")  
poisson(link = "log")  
quasi(link = "identity", variance = "constant")  
quasibinomial(link = "logit")  
quasipoisson(link = "log")
```

Normal (Gaussian) Distribution



Poisson Distribution  
(count data)



Gamma Distribution

- Standard linear model assumes a normal distribution of residuals. In the *generalised* linear mixed model, we can assume a distribution in our model that doesn't involve a normal distribution. We have already looked at the binomial.
- Gamma distribution is another possibility (see Kliegl et al. 2010, Lo & Andrews, 2015, for discussion).

```
model1 <- glmer(RT ~ Sentence*Context + (1+Sentence*Context|Subject) + (1+Sentence*Context|Item), data=DV, family=Gamma)
summary(model1)
```

Fixed effects:

	Estimate	Std. Error	t value
(Intercept)	7.28232	0.06731	108.20
Sentence1	0.02284	0.07679	0.30
Context1	0.04276	0.01701	2.51
Sentence1:Context1	-0.10806	0.03403	-3.18

t-value of the  
interaction larger than  
in previous analysis.