

# Experiment 1

## Model 1 (All)

Family: binomial ( logit )  
Formula: Order ~ Leng \* DO + DO \* Anim + (1 | Item) + (1 | Sub)  
Data: Exp1

AIC	BIC	logLik	deviance	df.resid
1028.9	1069.9	-506.4	1012.9	1246

Scaled residuals:

Min	1Q	Median	3Q	Max
-3.2140	-0.3742	-0.1144	0.3653	16.2607

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	2.326	1.525
Item	(Intercept)	1.613	1.270

Number of obs: 1254, groups: Sub, 78; Item, 16

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-1.3828	0.3840	-3.601	0.000317 ***
Leng	0.5456	0.1075	5.074	3.89e-07 ***
DO	-1.9441	0.2243	-8.668	< 2e-16 ***
Anim	-0.4299	0.3325	-1.293	0.195957
Leng:DO	0.1673	0.1054	1.587	0.112455
DO:Anim	-0.1061	0.1019	-1.042	0.297488

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr)	Leng	DO	Anim	Lng:DO
Leng	-0.113				
DO	0.136	-0.239			
Anim	0.024	-0.029	0.050		
Leng:DO	-0.108	0.475	-0.193	-0.022	
DO:Anim	0.065	-0.028	0.069	0.124	-0.046

## Model 2 (Bare DOs)

Family: binomial ( logit )  
Formula: Order ~ Leng \* Anim + ListOrd + (1 | Item) + (1 | Sub)  
Data: droplevels(subset(Exp1, V2 == "B"))

AIC	BIC	logLik	deviance	df.resid
383.7	415.0	-184.8	369.7	643

Scaled residuals:

Min	1Q	Median	3Q	Max
-1.9123	-0.2789	-0.1573	-0.0779	8.4294

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	3.2611	1.806
Item	(Intercept)	0.5476	0.740

Number of obs: 650, groups: Sub, 40; Item, 16

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-3.92371	0.55573	-7.060	1.66e-12 ***
Leng	0.64383	0.17452	3.689	0.000225 ***
Anim	-0.57227	0.25567	-2.238	0.025199 *
ListOrd	1.33723	0.50364	2.655	0.007928 **
Leng:Anim	-0.06619	0.16642	-0.398	0.690813

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr)	Leng	Anim	LOVN2P
Leng	-0.244			
Anim	0.095	-0.095		
Lst	-0.576	0.070	-0.010	
Leng:Anim	0.015	0.262	-0.203	-0.025

### Model 3 (Indefinite DOs)

Family: binomial ( logit )  
 Formula: Order ~ Leng + ListOrd + Anim + (1 | Item) + (1 | Sub)  
 Data: droplevels(subset(Exp1, v2 == "Q"))

AIC	BIC	logLik	deviance	df.resid
644.4	670.8	-316.2	632.4	598

Scaled residuals:

Min	1Q	Median	3Q	Max
-3.2726	-0.5531	0.2095	0.5088	3.3735

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	1.712	1.308
Item	(Intercept)	2.051	1.432

Number of obs: 604, groups: Suj, 38; Item, 16

Fixed effects:

	Estimate	Std. Error	z	value	Pr(> z )
(Intercept)	0.06663	0.56811	0.117	0.906630	
Leng	0.38476	0.11004	3.497	0.000471	***
ListOrd	1.06789	0.75263	1.419	0.155933	
Anim	-0.36055	0.37595	-0.959	0.337540	

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 Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr)	Leng	LOVN2P
Leng	0.005		
Lst	0.019		
Anim	0.000	-0.015	-0.021

## Experiment 2

### Model 1 (All)

Family: binomial ( logit )  
 Formula: Order ~ DO \* Leng + ListOrd + (1 | Prep) + (1 | Sub) + (1 | Item)  
 Data: Exp2

AIC	BIC	logLik	deviance	df.resid
585.7	620.0	-284.8	569.7	533

Scaled residuals:

Min	1Q	Median	3Q	Max
-3.7109	-0.5973	0.2729	0.5821	2.8035

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	0.6522	0.8076
Item	(Intercept)	0.4144	0.6437
Prep	(Intercept)	0.0443	0.2105

Number of obs: 541, groups: Sub, 34; Item, 16; Prep, 3

Fixed effects:

	Estimate	Std. Error	z	value	Pr(> z )
(Intercept)	0.66784	0.28403	2.351	0.0187	*
DO	1.09914	0.12248	8.974	< 2e-16	***
Leng	-0.51576	0.11387	-4.529	5.92e-06	***
List	-0.51459	0.11486	-4.480	7.46e-06	***
DO:Leng	0.02088	0.11231	0.186	0.8525	

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 Signif. codes:

0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr)	DO	Leng	List
DO	0.116			
Leng	-0.060	-0.216		
List	-0.057	-0.222	0.092	
DO:Leng	-0.064	-0.092	0.191	-0.015

### **Model 2 (Ra-marked DOs)**

Family: binomial (logit)

Formula: Order ~ Leng + (1 | Prep) + (1 | Item) + (1 | Sub)

Data: droplevels(subset(Exp2, v1 == "R"))

AIC	BIC	logLik	deviance	df.resid
261.7	279.7	-125.9	251.7	266

Scaled residuals:

Min	1Q	Median	3Q	Max
-2.7260	0.2070	0.3315	0.4642	0.9448

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	1.03859	1.0191
Item	(Intercept)	0.25039	0.5004
Prep	(Intercept)	0.05369	0.2317

Number of obs: 271, groups: Sub, 34; Item, 16; Prep, 3

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	1.7828	0.3610	4.938	7.89e-07 ***
Leng	-0.4969	0.1792	-2.774	0.00554 **

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Signif. codes:

0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)
Leng -0.200

### **Model 3 (Ra-marked DOs with Prep = "be")**

Family: binomial (logit)

Formula: Order ~ Leng + (1 | Item) + (1 | Sub)

Data: droplevels(subset(Exp2, v1 == "R" & Prep == "be"))

AIC	BIC	logLik	deviance	df.resid
123.5	135.3	-57.8	115.5	135

Scaled residuals:

Min	1Q	Median	3Q	Max
-3.2000	0.2381	0.3254	0.4302	0.7289

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	0.4164	0.6453
Item	(Intercept)	0.3697	0.6080

Number of obs: 139, groups: Sub, 34; Item, 8

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	2.0104	0.4491	4.476	7.61e-06 ***
Leng	-0.5398	0.2691	-2.006	0.0449 *

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Signif. codes:

0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)
Leng -0.282

#### **Model 4 (Indefinite DOs)**

Family: binomial ( logit )

Formula:

Order ~ Leng + List + (1 | Prep) + (1 | Item) + (1 | Sub)

Data: droplevels(subset(Exp2, v1 == "Q"))

AIC	BIC	logLik	deviance	df.resid
331.8	353.4	-159.9	319.8	264

Scaled residuals:

Min	1Q	Median	3Q	Max
-1.9092	-0.6451	-0.3263	0.6675	2.4162

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	0.97695	0.9884
Item	(Intercept)	0.65277	0.8079
Prep	(Intercept)	0.04802	0.2191

Number of obs: 270, groups: Sub, 34; Item, 16; Prep, 3

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-0.4743	0.3507	-1.353	0.176167
Leng	-0.5969	0.1576	-3.787	0.000152 ***
ListOrd	-0.7274	0.1677	-4.337	1.45e-05 ***

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Signif. codes:

0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr) Leng
Leng	0.067
List	0.062 0.189

#### **Model 5 (Indefinite DOs with Prep = "be")**

Family: binomial ( logit )

Formula: Order ~ Leng + ListOrd + (1 | Item) + (1 | Sub)

Data: droplevels(subset(Exp2, v1 == "Q" & Prep == "be"))

AIC	BIC	logLik	deviance	df.resid
168.8	183.2	-79.4	158.8	127

Scaled residuals:

Min	1Q	Median	3Q	Max
-1.5593	-0.6978	-0.2292	0.6564	2.3977

Random effects:

Groups	Name	Variance	Std.Dev.
Sub	(Intercept)	0.417	0.6458
Item	(Intercept)	1.019	1.0094

Number of obs: 132, groups: Sub, 34; Item, 8

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	0.008963	0.430563	0.021	0.98339
Leng	-0.761392	0.233399	-3.262	0.00111 **
ListOrd	-0.530247	0.239019	-2.218	0.02653 *

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Signif. codes:

0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr) Leng
Leng	-0.014
List	-0.015 0.313