

SUPPLEMENTARY FILE FOR

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APPENDIX 1 : TEST ITEMS

#	item type	item	translation	gender	elicited possessive
1	practice item	fly	plane	N	mitt
2	practice item	tog	train	N	mitt
3	practice item	flagg	flag	N	ditt
4	practice item	glass	glass	N	ditt
1	test item	kake	cake	F	mi
2	test item	krone	crown	F	mi
3	test item	frosk	frog	M	min
4	test item	kopp	mug	M	min
5	test item	geit	goat	F	di
6	test item	mus	mouse	F	di
7	test item	slange	snake	M	min
8	test item	kjole	dress	M	min
9	test item	måne	moon	M	din
10	test item	stige	ladder	M	din
11	test item	ekorn	squirrel	N	ditt
12	test item	eple	apple	N	ditt
13	test item	hest	horse	M	din
14	test item	traktor	tractor	M	din
15	test item	lue	beanie	F	mi
16	test item	klokke	clock	F	mi
17	test item	hus	house	N	mitt
18	test item	bord	table	N	mitt
19	test item	saks	scissors [sg.]	F	di
20	test item	vogn	cart	F	di

Table 13: All items from task 3 in the order of appearance.

APPENDIX 2 : STATISTICAL MODELS

Prenominal possessives

7-BC-model: Binomial mixed effects model for the high-schoolers (B-group) and adults (C-group) in all seven locations (glmer-function in R).

```
Generalized linear mixed model fit by maximum likelihood (Laplace
Approximation) ['glmerMod']
Family: binomial ( logit )
Formula: Fem ~ Sted * AgeGroup + (1 | Word) + (1 | subject)
Data: subset(GenVAC2, Condition == "PrePoss")
Control: glmerControl(optimizer = "bobyqa", optCtrl = list(maxfun = 2e+06))
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AIC	BIC	logLik	deviance	df.resid
1076.5	1168.3	-522.2	1044.5	2279

Scaled residuals:

Min	1Q	Median	3Q	Max
-3.8630	-0.0310	0.0134	0.0741	4.6276

Random effects:

Groups	Name	Variance	Std.Dev.
subject	(Intercept)	22.0744	4.6983
Word	(Intercept)	0.4292	0.6551

Number of obs: 2295, groups: subject, 287; Word, 8

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-6.582e-02	1.155e+00	-0.057	0.95454
StedEgersund	3.621e+00	1.598e+00	2.265	0.02349 *
StedKristiansand	-7.492e+00	2.597e+00	-2.885	0.00392 **
StedLyngdal	-3.400e+00	1.663e+00	-2.044	0.04096 *
StedMoiRana	6.453e+00	2.022e+00	3.191	0.00142 **
StedStavanger	-8.074e+00	3.048e+00	-2.649	0.00807 **
StedTrondheim	-6.979e+00	2.665e+00	-2.619	0.00883 **
AgeGroupC	8.805e+00	3.829e+00	2.300	0.02146 *
StedEgersund:AgeGroupC	-4.786e+00	4.459e+00	-1.073	0.28309
StedKristiansand:AgeGroupC	3.971e+00	4.670e+00	0.850	0.39514
StedLyngdal:AgeGroupC	2.561e+00	4.813e+00	0.532	0.59464
StedMoiRana:AgeGroupC	1.230e+01	6.821e+04	0.000	0.99986
StedStavanger:AgeGroupC	-5.961e-01	4.867e+00	-0.122	0.90252
StedTrondheim:AgeGroupC	-2.095e+00	4.643e+00	-0.451	0.65187

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

3-ABC-model: Binomial mixed effects model for the three locations with all age groups (children, high-schoolers, adults, i.e., group A, B, and C) (glmer-function in R).

```
Generalized linear mixed model fit by maximum likelihood (Laplace
Approximation) ['glmerMod']
Family: binomial ( logit )
Formula: Fem ~ Sted * AgeGroup + (1 | Word) + (1 | subject)
Data: subset(GenVAC3, Condition == "PrePoss")
Control: glmerControl(optimizer = "bobyqa", optCtrl = list(maxfun = 2e+06))
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      AIC      BIC    logLik deviance df.resid
730.7    788.8   -354.4    708.7    1443

Scaled residuals:
    Min      1Q  Median      3Q      Max
-5.5766 -0.0371  0.0127  0.1007  3.4775

Random effects:
 Groups Name      Variance Std.Dev.
 subject (Intercept) 19.008   4.360
 Word    (Intercept)  1.057   1.028
Number of obs: 1454, groups:  subject, 182; Word, 8

Fixed effects:
              Estimate Std. Error z value Pr(>|z|)
(Intercept)   -0.4656    1.2348  -0.377   0.7061
StedMoiRana    2.7389    1.7182   1.594   0.1109
StedStavanger -6.3903    1.6331  -3.913 9.12e-05 ***
AgeGroupB      3.9216    1.6800   2.334   0.0196 *
AgeGroupC      8.0766    1.6691   4.839 1.31e-06 ***
StedMoiRana:AgeGroupB  0.1222    2.2691   0.054   0.9570
StedStavanger:AgeGroupB -5.1294    2.4021  -2.135   0.0327 *
StedMoiRana:AgeGroupC 13.3037   60.3403   0.220   0.8255
StedStavanger:AgeGroupC -1.1271    2.1000  -0.537   0.5915
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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

Postnominal possessives

7-BC-model: Binomial mixed effects model for the high-schoolers (B-group) and adults (C-group) in all seven locations (glmer-function in R).

```

Generalized linear mixed model fit by maximum likelihood (Laplace
Approximation) ['glmerMod']
Family: binomial ( logit )
Formula: Fem ~ Sted * AgeGroup + (1 | Word) + (1 | subject)
Data: subset(GenVAC2, Condition == "PostPoss")
Control: glmerControl(optimizer = "bobyqa", optCtrl = list(maxfun = 2e+06))

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      AIC      BIC    logLik deviance df.resid
304.6    396.4   -136.3    272.6    2279

Scaled residuals:
    Min      1Q  Median      3Q      Max
-3.229  0.000  0.000  0.003  2.470

Random effects:
 Groups Name      Variance Std.Dev.
 subject (Intercept) 135.443  11.638
 Word    (Intercept)  1.212   1.101
Number of obs: 2295, groups:  subject, 287; Word, 8

Fixed effects:
              Estimate Std. Error z value Pr(>|z|)
(Intercept)   1.227e+01  1.096e+01  1.120   0.2629
StedEgersund  4.731e-02  1.549e+01  0.003   0.9976
StedKristiansand -1.440e+00  1.264e+01 -0.114   0.9092

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StedLyngdal	1.772e+01	2.187e+05	0.000	0.9999
StedMoiRana	-5.002e-02	1.549e+01	-0.003	0.9974
StedStavanger	-2.025e+01	1.142e+01	-1.773	0.0762
StedTrondheim	-8.695e-01	1.342e+01	-0.065	0.9483
AgeGroupC	2.310e+01	3.968e+06	0.000	1.0000
StedEgersund:AgeGroupC	-4.358e+00	3.983e+06	0.000	1.0000
StedKristiansand:AgeGroupC	1.223e+01	6.429e+06	0.000	1.0000
StedLyngdal:AgeGroupC	-1.219e+01	6.740e+06	0.000	1.0000
StedMoiRana:AgeGroupC	-5.747e+00	3.972e+06	0.000	1.0000
StedStavanger:AgeGroupC	-5.865e+00	3.968e+06	0.000	1.0000
StedTrondheim:AgeGroupC	8.636e+00	6.261e+06	0.000	1.0000

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

3-ABC-model: Binomial mixed effects model for the three locations with all age groups (children, high-schoolers, adults, i.e., group A, B, and C) (glmer-function in R).

Generalized linear mixed model fit by maximum likelihood (Laplace Approximation) ['glmerMod']

Family: binomial (logit)

Formula: Fem ~ Sted * AgeGroup + (1 | Word) + (1 | subject)

Data: subset(GenVAC3, Condition == "PostPoss")

Control: glmerControl(optimizer = "bobyqa", optCtrl = list(maxfun = 2e+06))

AIC	BIC	logLik	deviance	df.resid
421.4	479.5	-199.7	399.4	1443

Scaled residuals:

Min	1Q	Median	3Q	Max
-5.6429	0.0000	0.0015	0.0053	2.8155

Random effects:

Groups	Name	Variance	Std.Dev.
subject	(Intercept)	131.19	11.454
Word	(Intercept)	1.48	1.217

Number of obs: 1454, groups: subject, 182; Word, 8

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	9.5580	1.7187	5.561	2.68e-08 ***
StedMoiRana	2.1879	3.3320	0.657	0.511
StedStavanger	-18.3178	2.7159	-6.745	1.53e-11 ***
AgeGroupB	2.7862	3.8677	0.720	0.471
AgeGroupC	32.5511	71.0572	0.458	0.647
StedMoiRana:AgeGroupB	-2.2852	6.0513	-0.378	0.706
StedStavanger:AgeGroupB	-1.9973	4.4406	-0.450	0.653
StedMoiRana:AgeGroupC	0.9284	512.3375	0.002	0.999
StedStavanger:AgeGroupC	-14.5230	71.0555	-0.204	0.838

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